Gazette

THE MARINE CORPS

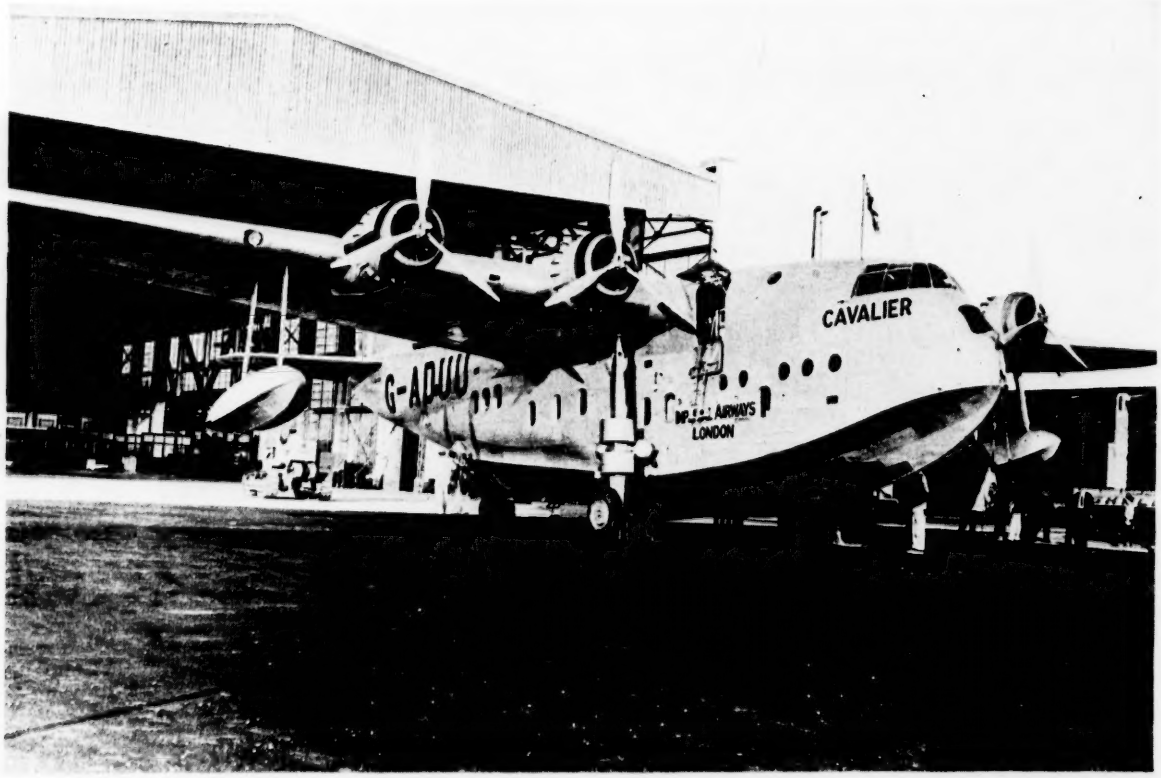
OCT 20 1937

The Marine Rifle Team that carried off the National Rifle Trophy by winning the National Rifle Team Match, the most important match fired at Camp Perry. Seated, left to right: Capt. William W. Davidson, Capt. Maurice L. Shively, Maj. William J. Whaling, Maj. Gen. Thomas Holcomb (Commandant of the U. S. Marine Corps), Chief Marine Gunner Calvin A. Lloyd, Lt. David S. McDougal, Gunnery Sgt. Thomas J. Jones. Standing: Edward V. Seeser, Raymond D. Chaney, William D. Linfoot, James R. Tucker, Valentine J. Kravitz, Claude N. Harris, Malcolm J. Holland, Wilbur L. Jessup, and Victor F. Brown.

NATIONAL MATCHES NUMBER

AUGUST, 1937

GROUND POWER



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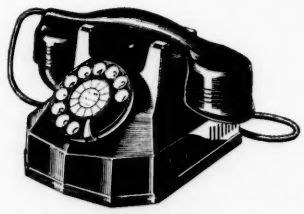

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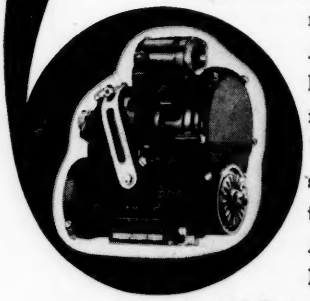

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THE MARINE CORPS GAZETTE

WASHINGTON, D. C.

Vol. 21 AUGUST, 1937 No. 3

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Marine Corps Rifle Team, 1937

Opinions or assertions in the articles are the private ones of the writers, and are not to be construed as official or reflecting the views of the Navy Department or the naval service at large.

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PATRONIZE OUR ADVERTISERS

THE MARINE CORPS GAZETTE

Vol. 21 AUGUST, 1937 No. 3

TWENTY SEVEN EIGHTY EIGHT

■ When a big sunburned hand lifted the chalk for the final time from the Marine's score board out at Perry at the finish of the thousand yard stage of the National Rifle Match, it showed a total of twenty-seven eighty-eight points. The vicinity resounded with cheers and smiles—a signal that the Marine Camp, which is located under the "Big Tree," had again and for the fifth consecutive time won the National Rifle Match. It was a thrilling scene and one which was commensurate to the occasion of gaining such an honor. It has always been a choice bit out at Perry to be able to locate a team's camp under the "Big Tree" and this victory assures the Marine Corps the same honor for 1938. Weather conditions during the firing of the match were, so the old timers say, probably the worst experienced in years. Lake Erie was a bit unfriendly as it sent over the range fish tails and puffs mixed with a misty drizzle. Much strategy ensued among the old heads of the various competing teams as they moved back to the thousand yard range. Some team captains were for firing immediately and others were for holding off until the last minute, hoping weather conditions would improve. However, those who selected the last course made a poor guess. So, after all, twenty-seven eighty-eight was not at all a bad showing under such wretched conditions.

Among those whose smiles were longest and broadest in the Marine Camp was our Commandant, General Holcomb, who cut his teeth on match ammunition. It was a glorious day for him and his air trip to Perry especially to see the closing stages of the National Rifle Match was justified. His presence was elevating to our team as well as an example and concern to the competitors. Upon being congratulated his remark was, "It's a wonderful team," while the consensus of the less fortunate teams may be covered by the remark made by one of our old and traditional rifle team captains, "They have a tough system to beat." The truth of such a remark is acknowledged, but we hesitate and supplement it by adding, "Our system plus our spirit is tough to beat." To the coaches and team captains, all of whom have been hardened to the tribulations and importance of National Match shooting, the Corps sends you a signal of "Hearty Congratulations," and "Well Done."

To the Second Battalion of the 5th Marines of the Force who garnered a hatful of compliments for themselves for their assignment as markers and scorers, we award them a 5 plus. The reputation they made has reflected handsomely the record of our Corps for utilization.

As can be seen our Reserve team came in 5th in the National Rifle Match which must be considered a distinct success. It is also noted that during certain minor matches our Reserve team caused many anxious moments to some of the best regular teams in the field. For the splendid account which they gave of themselves, and especially for their standing in the National Rifle Match, we touch our caps to them.

THE NATIONAL RIFLE TEAM

MARINES TEAM

Ind. Stdg.	Name	Rank	Ind. Total	Pair Total	Pair Stdg.
1.	BROWN, V. F.	Cpl.	290		
6.	JONES, T. J.	MGySgt.	279	569	1.
7.	DAVIDSON, W. W.	Capt.	278		
4.	HARRIS, C. N.	PlSgt.	283	561	2.
9.	JESSUP, W. L.	Cpl.	272		
3.	SEESER, E. V.	Sgt.	284	556	3.
8.	LINFOOT, W. D.	Cpl.	276		
5.	CHANEY, R. D.	Sgt.	279	555	4.
2.	HOLLAND, M. J.	Pfc.	284		
10.	TUCKER, J. R.	GySgt.	263	547	5.
	TEAM TOTALS			2788	

Place	Team	Score
1.	U. S. MARINE CORPS	2788
2.	U. S. CAVALRY	2764
3.	U. S. INFANTRY	2760
4.	U. S. COAST GUARD	2755
5.	U.S.M.C. RESERVE	2722

THE NATIONAL PISTOL TEAM

MARINES TEAM

Stdg.	Name	Rank	Total
1.	REEVES, H. W.	Cpl.	265
2.	LINFOOT, W. D.	Cpl.	260
3.	RICHARDS, W. P.	Maj.	257
4.	TUCKER, J. R.	GySgt.	256
5.	WHALING, W. J.	Maj.	253
	TEAM TOTAL		1291

Match won by the Los Angeles Police Department—Score 1332

Place	Team	Score
2.	U. S. COAST GUARD	1311
3.	U. S. CAVALRY	1305
4.	D&HRR POLICE	1302
5.	U. S. INFANTRY	1295
6.	U. S. MARINE CORPS	1291

I'll be seein' you under the Big Tree next year.—ED.

THE GUARDIA NACIONAL DE NICARAGUA

CAPTAIN EVANS F. CARLSON, USMC

INTRODUCTION

■ The pioneering spirit was abroad in the year of 1927. While millions of Americans enjoyed the benefits of prosperity, with no thought of the years of depression that lay just ahead, one Charles A. Lindbergh winged his way alone across the Atlantic to Fame and Paris. Later in the same year Richard Evelyn Byrd, already famous for a flight to the North Pole, made a forced landing off the coast of France after flying a twin-motored ship from the United States with a crew of three.

In the Republic of Nicaragua, situated in the heart of Central America, a handful of American Marines was initiating pioneer work of a different character, but equally hazardous, and no less important. These young Americans were proceeding quietly and without benefit of publicity to build within the executive structure of the Nicaraguan government an organization which was designed to secure and maintain domestic tranquillity within the borders of that eruptive state. That organization was known as the Guardia Nacional de Nicaragua.

These young men, the majority of whom were between the ages of twenty and thirty, were drawn from the U. S. Marine Corps by direction of the President under authority of an act of Congress which was approved on May 19, 1926, and which was entitled: "An act to authorize the President to detail officers and enlisted men of the United States Army, Navy and Marine Corps to assist the governments of the Latin-American Republics in military and naval matters." Their mission was to build an organization which would constitute the sole military and police force of the Republic. Their tools were the intelligence and experience with which they were endowed; their material for the task consisted of the manhood of Nicaragua, a sovereign state of 640,000 souls.

Without ostentation, without military pomp or ceremony, often living for months on end in comparative isolation from the English speaking world to which they were accustomed, this gallant band of resourceful pioneers wrought a flexible military unit of modest proportions, led it against the enemies of law and order in 510 lethal engagements, and inculcated in the citizens of the rural districts a knowledge of the principles of sanitation, public education and representative government.

It is the purpose of this article to sketch the highlights of the saga of the Guardia, and to reveal some of the epic incidents which so adequately illustrate the zeal and character of the men who built it. They were truly of the stuff of which pioneers are made, these 20th Century Marines, and the story of their exploits smacks of the vintage of the 1730's rather than of the 1930's.

I

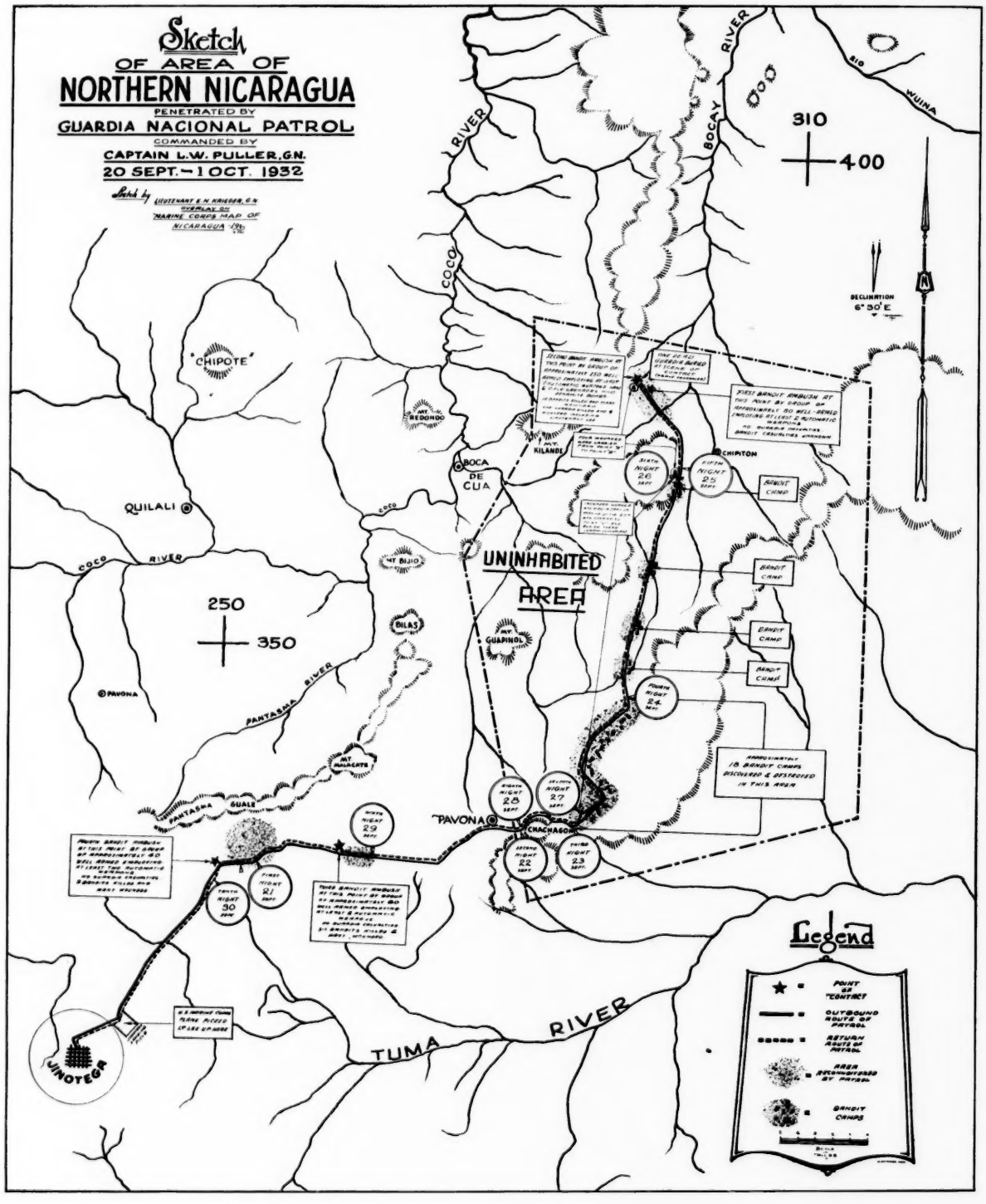
The geographical location, the topography of the country, and the heterogeneous population developed as a result of the fusion of the Spaniards with the native Indians. Lying in the heart of Central America, with Honduras and San Salvador on the north and Costa Rica on the south, this republic occupies 51,000 square miles of terrain, comparing in size with the state of Alabama. Along the western plains lie Lakes Managua and Nicaragua, which account for some 4,500 square miles of territory. The central cordillera, which is part of the spinal column of our Rocky Mountain system, sprawls over the northern provinces and tapers off into thin ridges as it skirts the eastern shores of Lake Nicaragua, in the south. East of the cordillera low lying jungles and swamps render travel other than by river practically impossible. Fully one-third of the population live in the cities of the western plains, while the remainder find ample elbow room in the remaining sections of the country.

Ceaseless political unrest has obtained through the years. The two traditional parties, which go by the titles of Liberal and Conservative, respectively, may at one time have fulfilled the implied attributes. But party issues are usually unimportant; it is the party leader who swings the votes and wields the power, a behaviorism which is not unknown in other countries. Supremacy at the polls becomes a vital necessity to the individual male who is over 21 years of age. If his party wins he will be favored in many ways, perhaps even win a sinecure in the government service; whereas, if the party loses he feels that he is doomed to a life of penury and woe until fortune again brings political victory to his side. It is the old story of the "Ins" and the "Outs."

Although the United States had had occasion to intervene in Nicaraguan affairs prior to 1909, in order to assure protection to foreign lives and property during periods of revolution, it was the revolt against the government of Jose Santos Zelaya in that year which was responsible for the conditions which resulted in the establishment of a Marine Legation Guard at Managua which remained until 1925. In that year the removal of the stability to which the presence of the Guard contributed probably encouraged the opposition to attempt again open revolt.

On October 25, 1925, the Conservatives, led by General Emiliano Chamorro, seized the reins of government from President Solozano. Vice-President Sacasa, who fled the country, initiated a counter-revolution in May, 1926. The threat to foreign lives and property became so great that Marines were landed on the East Coast, and subsequently on the West Coast at Corinto.

This act of intervention was by no means the arbitrary act of imperialism that the opponents of our policy in Nicaragua have asserted it to be. On November 15, 1926, President Diaz addressed a note to the American Charge d'Affaires requesting the assistance of the United States in protecting American lives and property. In December of the same year the Nicaraguan Minister of Foreign Affairs, in a note to the American Minister, authorized the United States to employ all ap-


Sketch
OF AREA OF
NORTHERN NICARAGUA
PENETRATED BY
GUARDIA NACIONAL PATROL
COMMANDED BY
CAPTAIN L.W. PULLER, GN.
20 SEPT.–1 OCT. 1932
Based by Lieutenant E.N. Krueger, GN
Overlay on
"Marine Corps Map of
Nicaragua"
310
400
250
350
COCO RIVER
BOCAY RIVER
RIO WAWA
DECLINATION 6° 30' E
"CHIPOTE"
MT. REDONDO
MT. KILAMBE
BOCA DE CUA
CHIPTON
QUILALI
COCO RIVER
MT. BIJIO
UNINHABITED AREA
MT. GUAPINOL
BILAS
PAVONA
PANTASMA RIVER
MT. MAGANTE
PANTASMA GUALE
PAVONA
CHACHAGUA
JINOTEGA
TUMA RIVER
Legend
POINT OF CONTACT
OUTBOUND ROUTE OF PATROL
RETURN ROUTE OF PATROL
AREA RECONNOITERED BY PATROL
BANDIT CAMPS

propriate measures for the protection of American lives and property. On February 20, 1927, President Diaz proposed that an offensive-defensive treaty be negotiated with the United States for the purpose of assuring the territorial integrity and peace of Nicaragua, and guaranteeing to the United States its canal rights. This proposal was upheld by the Nicaraguan Congress, in joint session, by a vote of 45 to 10. These acts of the Nicaraguan government clearly indicate its desire for American assistance in the protection of the lives and property of foreigners at this time. Assurances were given by many prominent Liberals of their acquiescence with this desire of the party in power.

By February of 1927, when the situation had become so acute as to necessitate the ordering of a regiment of Marines to the country to provide adequate protection to foreign lives and property.

In April, 1927, President Coolidge decided to attempt to reconcile the opposing factions, and sent Mr. Henry L. Stimson as his personal representative to see what could be done. Mr. Stimson succeeded in getting representative leaders of both sides to participate in a series of conferences at the sleepy village of Tipitapa, some ten miles east of Managua. Out of these conversations there was born a new political era for Nicaragua, an era in which the United States undertook the supervision of three national elections, and the organization and training of a military unit which was to become the sole military and police force of the Republic: The Guardia Nacional.

II

The organization of an army, be it ever so humble, is no small task. When, in addition to its usual function of defending the nation against invasion from without and rebellion from within, it is made responsible for rural and urban police protection, it is obvious that the task becomes measurably more difficult. It was this task which faced Colonel Robert Y. Rhea, U. S. Marine Corps, when, on May 12, 1927, he assumed command of the Guardia.

An organization of sorts was in existence, but its doubtful value is attested by the fact that, when Colonel Rhea assumed command, out of a total of two hundred and ninety-four enlisted men who were carried on the rolls there were sixty-five absentees. The unit was forthwith disbanded and the new Guardia commenced its career from scratch.

The health of Colonel Rhea required that he return to the United States in June, 1927. Major Harold C. Pierce, USMC, substituted for him until the arrival of Lieutenant Colonel E. R. Beadle on July 10th. Colonel Beadle became Jefe Director (Commanding General) of the Guardia, with the rank of Brigadier General. Assisted by his very able Chief of Staff, Colonel Samuel H. Harrington, G.N. (Major, USMC), he guided the destinies of the Guardia until March 11, 1929. On his shoulders devolved the responsibility for the initiation of the basic plans. The essential administrative details were infinite. Regulations for discipline and training had to be prepared in the Spanish language. A system of pay and supply must needs be devised and placed in operation. Service record books and muster rolls had to be designed.

Most important was the recruiting of desirable men from among the Nicaraguan populace. Never before had a Nicaraguan military force been non-partisan; it was imperative that this one be so in order to encourage respect for the Guardia as a disinterested law enforcement body. Officers for the Guardia were drawn from officers and non-commissioned officers of the Marine Corps, preference being given those who spoke Spanish or who had had previous duty of this general type.

The demand for troops to assist in the suppression of banditry, and the protection of towns in the northern sections of the country, caused the organization to grow on a piece-meal basis. Companies were despatched to the more vulnerable points as rapidly as they could be recruited. Thus, the First Company went to Ocotal on the 1st of July, and the Second Company was despatched to Chinendega in August; the Third Company also went to the Northern Area, but later returned to provide the police force for the city of Managua. The Fourth Company took over the National Penitentiary. Graudally the influence of the Guardia was extended into all the populated districts of the Republic.

Decentralization of administration followed, and control was exercised by the Jefe Director through four Area Commanders and four Independent Department Commanders. A Department usually comprised the geographical area which lay within the boundaries of the corresponding political Department (State), or Province. A Military Area consisted of two or more Departments. The capital city of Managua constituted a separate Department which came under the immediate supervision of the Jefe Director.

The Guardia received its baptism of fire on July 16, 1927, at what has since become known as the battle of Ocotal. The garrison at that station, which was commanded by Captain G. D. Hatfield, USMC, included part of the First Company under the command of Captain G. C. Darnall, G.N. (1st Lt., USMC). The battle took the form of an attack at night by a force estimated to consist of some three hundred bandits, led by Augosto "Caesar" Sandino. The Guardia casualties consisted of three men wounded.

Second in command of the Guardia at the Battle of Ocotal was Lieutenant T. Bruce, G.N. (1st Sergeant, USMC), who was killed on January 1, 1928, while leading a charge against a bandit position at Las Cruces, in the engagement in which Lieutenant Richal, USMC, was wounded. It is significant of the camaraderie which had developed between the native members of the Guardia and their officers, by this time, that a sergeant named Policarpo Gutierrez lost his left arm in this engagement while recovering Bruce's body. Gutierrez was later promoted to commissioned rank, and was still rendering faithful service at the time of the withdrawal of the Marines from Nicaragua in 1933. In 1932 Gutierrez was decorated with the Cross of Valor by President Moncada, who at the same time presented a similar decoration to Lieutenant Donald Truesdale, G.N. (Sergeant, USMC). Truesdale had also lost an arm, his right, while on active service. His loss had been sustained

while he was saving the natives of his patrol from the effects of a live rifle grenade, an act for which he received the U. S. Congressional Medal of Honor. These two men, one Nicaraguan, the other American, epitomized the spirit of the Guardia: "One for all, all for one."

III

The training objective of the Guardia contemplated that during the first two years it would be brigaded in the field with Marine units, being afforded the opportunity to learn through emulation as well as through the instruction given by their officers. Patrols of Marines usually contained a Guardia contingent, as did the garrisons of all towns.

By the time that Colonel Douglas C. McDougal had succeeded Colonel Beadle as Jefe Director, in March of 1929, the ground work for its development had been prepared. There was, however, much still to be accomplished before the Guardia could be considered to be a living entity, and capable of standing on its own feet. This adolescent period of its growth owes its success to the experience and judgment of Colonel McDougal, who became a Major General in the Ejercito, and to his very capable Chief of Staff, Lieut. Colonel C. B. Vogel, USMC.

The Guardia had now participated in fifty-one engagements, and had suffered the loss of fourteen of its members killed, two of whom were American Marines. In the towns police units were rapidly gaining the respect of the citizens, and the new era for Nicaragua was becoming something more than a fanciful illusion.

A major task which faced General McDougal in 1929 was the assumption by the Guardia of a greater measure of responsibility for the maintenance of law and order, especially in those districts of Segovia and Jinotega where bandit groups were active. From the standpoint of the United States it was desirable to reduce the number of Marine units employed in Nicaragua, with a view to transferring responsibility to Nicaraguan authority.

In the latter part of 1929 and in early 1930 garrisons in the north were gradually turned over to the Guardia, and more and more of the active patrolling was performed by them until by the summer of 1930 it was seldom that the Marines took the field in offensive operations. Their role became that of a reserve which was prepared to reenforce the Guardia in case the situation should get out of hand. Three Marine garrisons were left in Segovia, and two in Jinotega-Matagalpa, until 1931.

This was a precarious period for the Guardia. Readjustments were necessary. Time and experience in their new status were required to give the men the confidence in themselves and in their officers which was essential to the successful fulfillment of their charge. More than any other time, possibly, the qualities of tact, judgment and courage were necessary attributes of the officers who directed the operations in the field. They were dealing with men who spoke a different language, and whose psychological approach to the ordinary problems of life was quite different from that to which Marines were accustomed. Of course, they were outnumbered, and often they were stationed in a town as much as thirty miles from the nearest other garrison. Leadership of a high order was called for, and in most cases it was forthcoming. Towns were not only successfully defended against attack, but the Guardia took the offensive and carried the fighting into the habitat of the bandits: the mountain regions of Segovia, Esteli, Jinotega and the littoral of the East Coast.

The difficulties of the period of transition, when the responsibility for maintaining law and order was passing from the Marines to the Guardia, were increased when, on May 16, 1930, Sandino, the Number One bandit leader, returned to the country from his retirement in Mexico. He immediately concentrated his forces for a drive on the important centers of population, his first objective being the coffee growing areas of Jinotega and Matagalpa. On the 19th of June he was found to be in possession of Yucca Pucca (Saraguasca) mountain, north of the town of Jinotega, with about a hundred and fifty men.

The Marine air force attacked his position and routed his columns. In the fracas Sandino sustained a leg wound from a bomb fragment. He retired from active leadership in the field, and established his headquarters in the mountain fastnesses near the junction of the Poteca and Coco rivers, from whence he continued to coordinate the activities of his subordinates.

The more important of the other leaders at this time were Pedron Altimirano, a 65 year old professional bandit who operated principally in northeastern Jinotega; Miguel Ortez, whose operations covered a wide range, but were primarily in Segovia, Esteli and northern Jinotega; Jose Leon Diaz, who ranged through western Segovia, Esteli and Chinandega; Juan Umanzor, also addicted to the territory used by Diaz; and Gregorio Colindres, a Honduranean who possessed a roving commission. Until his death, which occurred during an attack on Palacaguina in 1931, where the garrison was commanded by Captain J. O. Brauer, G.N., Ortez was the most active and daring of the bandit jefes and in his charitable attitude towards the inhabitants was the prototype of the legendary Robin Hood.

IV

Sandino's plan, if he may be said to have had one, was to harass, but not to inflict casualties which would result in an increase in the Marine force in Nicaragua. By constantly harassing the Guardia and Marines he hoped to incite public opinion in the United States to the point where the withdrawal of the occupational forces would be demanded of the Administration. He consistently robbed the people, and through threats and coercive measures he extorted contributions to his cause.

The technique employed by the bandits in the execution of this policy consisted largely in ambushing Guardia patrols. Ambush sites were selected for their commanding positions and the facilities afforded for a rapid withdrawal to the rear. Everything was staked on inflicting casualties with the first burst of fire. After that the bandits usually evacuated the position, broke up into groups of twos and threes, and infiltrated

through the brush and woods, to reunite at a predetermined rendezvous.

In 1931-32 the technique was changed slightly. Bandit groups became more bold and often held their ground and fought pitched battles. This change in policy was caused, in part, by the aggressiveness and ingenuity of the Guardia. They fought fire with fire. The bandits moved at night and ambushed or fought in the daytime; the Guardia went one better and not only moved at night but fought at night, when by so doing they could gain tactical surprise. They became so adept at instantly returning the fire of an ambushing group that the bandits had to stand and fight or be annihilated in ignominious retreat. But in 1929-30 the "hit and run" technique was still in vogue.

General McDougal invoked the coordinated offensive. In adopting this device for sweeping areas thought to contain bandits he was warmly supported by Colonel Robert L. Denig, G.N. (Major, USMC), who had proved to be an aggressive Area Commander in Segovia. In August, 1930, General McDougal concentrated nine patrols from the Segovia and Jinotega areas along the Pantasma river, and despatched them on a drive to clear the Pena Blanca mountain area of bandits. Five engagements resulted. Two other "drives" were executed before his tour of duty expired in February, 1931, and he returned to the States.

The experience of one of the patrols which participated in the first coordinated "drive" will serve to illustrate the nature of the operation. Patrol Number One, commanded by Captain G. F. Good, G.N. (1st Lt., USMC), consisted of three officers and forty men from the Quilili garrison. It had orders to "jump off" from Santa Cruz, at the junction of the Pantasma and Coco rivers, at daylight on the 16th of August, and to drive vigorously southeast. Thus, it was on the extreme left flank of the nine patrols. It was to seek out bandit groups and destroy them. Patrols had orders to march toward the sound of all firing, in order to assure mutual support. They were further directed to remain in the field until the daily contact planes flew streamers from their wing tips, which was the signal for the return to home stations.

Captain Good carried out his instructions to the letter. Finding no trail leading to the southeast from Santa Cruz, he set a compass course across country, and proceeded to carve a trail out of the rugged wilderness. On the fourth day the patrol arrived at the base of Pena Blanca mountain. The compass indicated a course up the precipitous northwest side, so up that side the patrol went, mules and cargo being man-handled over the sharp bluffs.

At about six o'clock that evening the patrol had gained the summit and was making its way through open pine woods when the strains of a guitar were heard on the still clear air. In an area known to be uninhabited by law abiding citizens this could mean but one thing: a bandit camp. The patrol deployed, and Captain Good proceeded to scout the campsite and get his patrol into position. The orders were that general fire was to be opened when a burst was fired from an automatic weapon. The bandit group would probably have been annihilated, for it expected no attack from the precipitous northwest side, had it not been that one of the Guardias inadvertently stepped into the open before Captain Good was ready to open the attack. He was observed from the camp, and the fight was on. A sharp engagement ensued for ten minutes, when the bandits withdrew leaving one dead behind. It developed that this had been the personal campsite of Pedron Altimirano, and not only his personal bodyguards were there, but the feminine members of his family as well. When he fled he left behind a quantity of arms, ammunition and clothing, which were captured by the Guardia. The patrol endeavored for nearly a week to regain contact, but was forced to retire when its food supply became exhausted.

Troop leading in the Guardia was always an adventure, but it was particularly so during the period when the Guardia was becoming accustomed to the exercise of authority and the assumption of responsibility in the bandit infested areas. Within a Department Districts were established. A District usually consisted of a trading center (town) and the adjacent area half way to the headquarters of the adjoining District. Fifteen to twenty miles often separated the towns in which district headquarters were located.

A District was usually commanded by a captain, who had with him one or two lieutenants and from thirty to fifty Guardias. The District Commander was responsible directly to the Department Commander for the state of law and order in his district. Obviously it was imperative that the bandits be kept out of the district if order was to be maintained.

An accurate and active intelligence service was indispensable if the bandits were to be attacked immediately they entered the district, and if false alarms were to be guarded against. Provision had to be made for the defense of the towns. Patrols had to be planned so that the critical points in the district would be covered systematically, and to assure that an emergency in any section of the District could be handled expeditiously. Supply was an ever present problem.

Patrol leaders soon learned how to get the most out of their men, and how to win their devotion and loyalty. For the most part the natives were honest and cheerful souls who would endure great hardships without complaint if they were adequately fed and were given fair treatment. If the leader took an unusual interest in their welfare, and had proved himself to be valiant in battle, his men would follow him with unwavering devotion. Their admiration for courage was boundless.

Probably no finer example of leadership was displayed in the Guardia than that of Captain L. B. Puller, G.N. (1st Lieut., USMC), who commanded a mobile patrol, based on Jinotega, which was known as Company "M." Puller was hard-boiled and aggressive, but he was unfailing in his devotion to the interests of his men. He worked them hard and whipped them into a combat team that fought over twenty successful engagements. To the bandits he was known as "The Tiger of the Mountains." He won two citations for the Navy Cross for extraordinary heroism, and his second-in-command, Lieutenant William Lee (now Marine Gun-

ner, USMC), was awarded three such citations, the highest number ever awarded a single member of the naval service.

V

General McDougal was relieved on February 5, 1931, as Jefe Director by Lieutenant Colonel Calvin B. Matthews, who assumed the rank of Brigadier General, and was subsequently promoted to the grade of Major General in the Guardia.

General Matthews had arrived in Nicaragua in June of the preceding year, serving first in command of the Central Area at Jinotega, and later as Chief of Staff of the Guardia. This period of indoctrination had afforded him the opportunity to feel the pulse of this thriving institution, and to gain first hand information of the problems of the field units, as well as of those that were performing the less conspicuous but equally important police duties in the southern areas. The experience stood him in good stead, for he was to command the Guardia until it was turned over to the custody of Nicaraguan officers on the evacuation of the Marine force from the Republic on January 2, 1933. It was without doubt the period of greatest activity for the Guardia, as well as the period which required the greatest finesse on the part of the commander in order to successfully guide the unit through the party rivalries of a national election, and turn it over to the officers designated by the incoming President without the occurrence of a single unpleasant incident.

A succession of officers served General Matthews as Chief of Staff. First on the list was Colonel Robert L. Denig, who had done a fine job as commander of the Northern Area. He sustained a broken ankle during the earthquake of March, 1931, and was evacuated to the States. He was succeeded by Colonel Walter G. Sheard (Major, USMC), who displayed a keen comprehension of Nicaraguan psychology, and rendered effective service. In 1932 Colonel Julian C. Smith, G.N. (Major, USMC), who had completed an unusually active year as commander of the Jinotega area, took over the duties of Chief of Staff. For his outstanding work he was promoted to the rank of Brigadier General, G.N., in the autumn of 1932.

It was on February 13, 1931, that the State Department made known officially its intention that all Marines should be withdrawn from Nicaragua after the election of November, 1932. An immediate problem was that of providing a corps of trained native officers before the date of the contemplated withdrawal.

A military academy for the training of junior officers had been inaugurated during the winter of 1929-30 under the supervision of Lieutenant E. J. Trumble, USMC, during the administration of General McDougal. However, this school could do no more than train officers for the lower grades. Lack of funds and, what was probably an even more difficult handicap to overcome, a lack of time, militated against the development and preparation of officers for command and staff duties. In order to be acceptable to the high civil authorities after the departure of the Marines the officers of field rank would of necessity have to be men of mature age and experience. The time limit did not permit of the proper indoctrination and training of younger men, and those who were older usually had developed political predilections which rendered them unacceptable. As we shall see later, this problem was solved by compromise.

On the 31st of March, 1931, an earthquake, followed by a devastating fire, razed the capital city of Managua. The tragedy provided the Guardia with a severe test of the effectiveness of its organization and the calibre of its leaders. For several days the headquarters staff was required by the extreme demands of the emergency to assist in the coordination of the relief work in Managua in addition to directing the routine activities of the Guardia.

The major shock occurred at 10.20 a.m. It was followed throughout the day by other shocks which added to the hysteria of the masses. It happened that the President of the Republic was out of the city. It was essential that a proclamation be issued without delay providing for the establishment of martial law, so that the organized military forces (Guardia and Marine) might re-establish order, and systematically conduct the work of relieving the distressed condition of the victims. When no civil official was immediately available General Matthews, in his capacity as Commander of the military forces of the Republic, assumed the responsibility for the proclamation. It was dated at 11.00 a.m., just forty minutes after the first tremor.

HEADQUARTERS, GUARDIA NACIONAL DE NICARAGUA
Managua, Nicaragua

31 March 1931.

DECREE

1. In the absence of the President of Nicaragua and during the emergency caused by the earthquake of today, and by virtue of my being the senior representative officer of the Nicaraguan Government present in Managua, Martial Law is declared until further orders.

2. Sentries will be instructed to shoot to kill any person or persons committing acts of vandalism, looting, or any other acts of depredation.

3. The Brigade Commander, Second Brigade, U. S. Marines, Managua, Nicaragua, is requested to issue instructions to Marine sentinels to carry out the above order.

C. B. MATTHEWS,
Brigadier General, Guardia Nacional, Jefe Director, Guardia Nacional, and senior representative officer of the Nicaraguan Government in Managua.

OFFICIAL:

(Signed)
Walter G. Sheard,
Colonel, G. N. de N.
Chief of Staff.

Brigadier General F. L. Bradman, Commanding General of the Marine Brigade, though himself suffering from injuries received in the earthquake, with equal promptness ordered the Marines under his command to begin the task of rescuing the injured, caring for the homeless and feeding the hungry; and, in cooperation with the Guardia, to patrol the streets, preserve order and prevent looting.

At 12.33 p.m., Senor Don Jose del Carmen Flores, the Jefe Politico (Governor) of the Department of Managua, appeared and as the senior civil official on the ground he issued a second proclamation which confirmed the action taken by General Matthews.

JOSE DEL CARMEN FLORES, Jefe Politico of the Department.

WHEREAS:

1. The earthquake which struck on March 31, 1931, has destroyed the homes of the greatest part of the population of Managua.

DECREES:

ONE—That Martial Law is declared in the Department of Managua until such a time as the Supreme Government or the Sovereign National Congress takes necessary action.

Managua, Nicaragua—at 12:33 p.m., March 31, 1931.

Sentries are hereby instructed to fire upon any person committing acts of vandalism.

(Signed) JOSE DEL C. FLORES,
Jefe Politico.

At four o'clock that afternoon His Excellency, President Jose Maria Moncada, arrived in the city and issued a formal decree which specifically confirmed the actions of General Matthews and the Jefe Politico.

THE PRESIDENT OF THE REPUBLIC

WHEREAS:

The earthquake which struck on this date has left the capital city nearly in ruins;

WHEREAS:

It is imperative to provide security for persons and property and to protect them from damages;

WHEREAS:

Because of this terrible disaster hunger and lack of shelter threaten us;

DECREES:

1. To approve the declaration of Martial Law and relative orders issued by the Jefe Politico of this Department and by the Jefe Director of the Guardia Nacional, and to subject the city to the consequences arising from such declaration;
2. To direct the Jefe Director of the Guardia Nacional and the Jefe Politico of this Department to carry out the immediate and efficient execution of all orders issued by this Executive Office for the saving of life and protection of property;
3. To declare that the local authorities are subject to the orders relative to Martial Law and to those issued by this Executive Office until such a time as constitutional order may be reestablished;
4. To requisition by the State the necessary food supplies to feed the population which has been left homeless and without means of support;
5. The respective Departments of the Government shall take the necessary steps toward the sanitation of the city, the burial of corpses, and other indispensable steps in connection therewith;
6. In accordance with the present Decree, the Executive Secretary and the Members of the Executive Committee of the National District shall appoint commissions for the execution of this decree.

Given at the Presidential Palace—Managua, 31 March, 1931.

(Signed) J. M. MONCADA,

The Minister of Fomento and acting head of the Departments of Governacion and War.

(Signed) ANTONIO FLORES V.

These proclamations are of considerable sentimental and professional interest to the Marine Corps, and facsimiles of them are reproduced here. The prompt willingness of General Matthews to accept the responsibility for issuing a proclamation under the extraordinary conditions which obtained was in line with the character of his leadership throughout. In this case his action undoubtedly checked the activities of looters, and provided the discipline of military control which prevented epidemics and enabled the city to make short shrift of the work of relief and reconstruction.

The earthquake took the lives of two Guardia officers. Lieutenant Commander Hugo Baske (MC), USN, and Chief Quartermaster Clerk James F. Dickey, USMC, were killed at the National Penitentiary, a huge stone cuartel, which was razed.

VI

The Eastern Area, with headquarters at Bluefields, and at this time under the command of Colonel John Marston, G.N. (Lieut. Colonel, USMC), had been relatively free from bandit activities until this time. However, in April, 1931, a bandit leader named Blandon, who ordinarily operated in Esteli, made an excursion to the mines and banana plantations of the area east of the Cordillera. On the 11th of April he engaged a patrol which was commanded by Captain Harlan Pefley, USMC, near Logtown. Pefley was killed during the skirmish. On the 13th of April another patrol, under the command of Captain Wood, USMC, with Lieutenant Darrah, G.N., as junior officer, attacked Blandon's group near Logtown. Planes assisted in the destruction of the bandits, and Blandon joined the ranks of dead jefes.

On the 15th of June the number of Marines who had been killed while serving with the Guardia during the four years of its existence was brought to fourteen by the deaths of Captain Lester Power, G.N., and Lieutenant William E. McGhee. Their patrol was attacked while in camp at Embocaderos by a superior force of bandits under the leadership of Pedron Altimirano.

These deaths tended to emphasize to the people of the United States that the work of training a national constabulary was far from being a peaceful and safe occupation. The yeoman work of this nature which so often falls to the lot of the Marines is too frequently considered by the folks at home as a normal peacetime function which is free of the hazards which are ordinarily associated with a major war. But a man is just as dead if he is killed in a minor engagement of a minor expedition as he is if he succumbs in the greatest battle of a major war. It perhaps takes more courage to carry on in a minor war for often the individual lacks the moral support which is provided by the propinquity of large numbers in a major operation.

Hostilities were brought to the more thickly populated districts along the Corinto-Managua railway in the autumn of 1931, when Juan Gregorio Colindres made a swift raid south and west from the Esteli mountain region with a hundred and fifty well mounted men. On the 22d of November this group attacked the town of Chichigalpa, on the railway. The town was not defended, only two Guardias being on duty there as police. The attack was not important for the material damage that was occasioned, which was little; but the contempt for the authority of the Guardia which was implied constituted a challenge which could not be ignored. All the reserve forces which could be spared from other areas were poured into the Leon-Chinandega area, and Colonel Thomas Watson, G.N. (Major, USMC), was sent to El Sauce, forty miles north of Leon, to conduct the operations which aimed to rid those provinces of banditry.

A Presidential election was scheduled to be held the following year and it was probably this fact, as well as his love for active military operations, which decided the President, General Moncada, to avail himself of his executive prerogative as Commander-in-Chief of the military forces by moving to Leon and assuming direction of affairs from his headquarters in the zone of operations. He took with him several members of his cabinet, and the Jefe Director of the Guardia, General Matthews.

An Advanced General Headquarters of the Guardia was set up at Leon on November 24 and continued to function until December 9, when it was dissolved, its purpose having been accomplished. In a series of seven contacts the bandits were driven from the area.

The presence of the Chief Executive of the Republic in the field had the advantage of providing immediate action when it became desirable to temporarily increase the strength of the Guardia to meet the emergency. In this connection an event occurred at Leon which is probably without parallel in the history of the authorization and organization of military forces.

It was about seven o'clock on the morning of the 28th of November when President Moncada sent for General Matthews and inquired as to the size of the increase in the Guardia which he considered adequate to meet the existing emergency. The Jefe Director replied that he believed an additional three hundred men over a period of three months would achieve the desired purpose at the least expense to the state. The President desired to know the sum of money which would be required to meet the additional expense involved, and when he had been so advised he directed his Minister of Government to have that sum placed in the National Bank at Managua to the credit of the Guardia. This decision was made at 8.00 a.m. It was nine o'clock before the transfer of funds had been effected, and recruiting could be started. An hour later the President sent an aide to inquire of General Matthews the probable hour of departure of the first patrol of the new levies.

It was clear that the President wanted action and General Matthews directed that a patrol of the "Auxiliares," as they were called, be organized and despatched to the infected area as expeditiously as possible. Lieutenant George Gardner (Gunnery Sergeant, USMC) was chosen to command the patrol. He spoke Spanish fluently, and had a reputation for being a cool headed leader, and one who had a way with Nicaraguans. No better choice could have been made.

At five o'clock that afternoon Gardner and his patrol of fifty Auxiliares, together with an equal number of riding animals, were loaded on a train on the El Sauce branch railway. At 11.00 p.m., they detrained at the railhead, near Valle de los Zapatos. At nine o'clock the following morning, just twenty-five hours after the President had authorized the recruitment of the new force, this representative patrol became engaged with a superior force of bandits near El Cuadro, and three of their number were wounded. Lack of discipline naturally made control difficult, and the men soon exhausted their ammunition, necessitating a return to the railhead for more. But that was insignificant when compared to the moral ascendancy which was gained by the early and effective employment of the Auxiliares.

After a campaign of two weeks this group returned to Leon mounted. Whereas they had departed as an undisciplined mob, patently dissatisfied with their employment under an American leader, they returned to the city as a well integrated fighting unit, filling the air, in their enthusiasm, with vivas for everyone from the President to Teniente Gardner. The incident was a fine tribute to the leadership of Gardner, and provides a bright page in the history of the Guardia, besides reflecting marked credit on the Marine Corps.

VII

The Guardia had reached the beginning of the final year of its career under the supervision of American officers. The national elections, at which a new President would be selected by popular vote, were to be held under American supervision on November 6th. The political atmosphere became more and more tense. Party lines were closely drawn, and their respective adherents were scarcely on speaking terms. For such is the intensity of feeling engendered by politics among Latin-Americans.

Sandino became more violent in his public pronouncements of his intention to prevent the elections by intimidating voters, and by creating disorders which would prevent them from attending the polls. Attacks on Guardia garrisons and patrols became more frequent and violent. The Guardia needed to gird itself for a strenuous year if it was to continue to justify its existence, and provide the protection to life and property which would permit the holding of fair elections, thus paving the way for a dignified and honorable withdrawal of the Marines on the 2d of January, 1933.

A severe blow was sustained on April 21, 1932, when three American officers and seven Guardias were killed in two engagements near Las Puertas on the Apali-Jalapa camino real. A patrol commanded by Lieutenant Covington was returning to Jalapa from Apali when it was ambushed by a group of about 200 bandits as it was approaching a stream crossing. Lieutenant Covington extricated his patrol with the loss of four men. While returning to Apali with the bodies of the dead, a relief column, commanded by Lieutenant Brunton, and accompanied by Lieutenant Whitehead, was met. The patrols united and the combined column was en route to Apali when it was surprised and attacked by the same group of bandits, which had taken advantage of a short cut to intercept it. The three officers, who were grouped together, were killed early in the engagement, and the patrol was routed. This was the most serious defeat which was sustained by the Guardia, and was due primarily to the inexperience of the officers concerned.

One of the wounded in this engagement had a miraculous escape from death. Francisco Salgado was a Hospital Corpsman, known in the Guardia as a Practicante. In that capacity he was accompanying the column when it was attacked the second time. When the officers were killed the bandits closed with the Guardias, and attacked with machetes. Salgado was slightly wounded in the head and, seeing his comrades in flight, he dropped to the ground and feigned death. A bandit approached and gave him the corte de choleco, which consists of a slash with the knife down each side of the neck, giving the effect of the cut of a vest, and designed to sever the head from the shoulders. But in this case the bandit lacked the skill and accuracy of the master, and Salgado neither lost consciousness nor gave indication that he lived; truly a supreme test of self control. He was found on the field three hours later and rushed by plane to the hospital in Managua, where small hope was held for his

recovery. However, Salgado proved to be an outstanding example of the ability of the hardy mountain type of Nicaraguan to take punishment, for he not only survived but returned to duty four mouths later minus half of his neck, but otherwise fit as a fiddle.

The Medical Department of the Guardia rendered signal service throughout. Guided by Colonels Hale and Turville (both Commanders (MC) USN), who were assisted, respectively, by Majors Boone and Hughens (Lieutenant Commanders (MC) USN), this important branch distinguished itself both in the field and in the work of restoring the broken manpower which filtered into the Managua hospital in a fairly steady stream. Some amazing cures were effected among the gunshot wound cases, and many ingenious devices were evolved for their treatment.

While the suppression of banditry was a major mission it was only slightly more important than the maintenance of law and order in the more settled districts, which comprised two-thirds of the country. The routine police functions proved to be anything but uninteresting to the officers who were charged with this responsibility. A condition which contributed very materially to the difficulty of the police problem was created by the diffidence of the native judiciary, this branch of the government being wholly in the hands of Nicaraguans. In many cases these officials resented the presence of American Marines in the Guardia, and made no attempt to cooperate in the prosecution of criminal cases.

The Constitution provided that in all arrests, except those made by Executive order, the accused must be placed to the order of the appropriate court within twenty-four hours. In a majority of the cases of prisoners who were placed before the Criminal Judges the cases were either dismissed, or indefinitely continued, the defendants being released on bail. On account of the hostility of the jurists great care was exercised in refraining from making arrests until adequate evidence was available. During the year 1931-32 the Police Force of Managua made 1,097 arrests on criminal charges. Of this number the criminal courts convicted only three individuals. It was only by relentless pursuit of known criminals, giving them no rest when they had committed themselves, that a semblance of order was maintained, and private property was secured. Eventually it became expedient to place criminal cases before the Police Judge, although his powers of punishment were limited, rather than to chance the probability of inaction at the hands of the Criminal Judges, with the concomitant contempt for the law which was thus engendered.

Another handicap under which the Guardia labored concerned the difficulty of getting from the Government the monthly appropriation for the current running expenses. The Jefe Director was constrained to bring constant pressure on government officials in order to keep the Guardia solvent. At one time the Jefe Director sent a despatch to the Major General Commandant, General Fuller, advising that the financial situation had become so difficult as to necessitate a recommendation that our government inform the Nicaraguan government that it would be impracticable to continue American supervision of the Guardia. Simultaneously he informed the American Minister of his action, and the latter made strong representations to the President. Thenceforth the problem became less difficult.

The extremely abnormal logistic conditions which attended the conduct of military affairs provided many a headache for the Fourth section of the staff. Fair roads existed in the southern Departments of Managua, Carazo, Masaya, Granada and Rivas, and a railroad connected the Pacific port of Corinto with the western Departments of Chinandega and Leon, as well as with Managua and Granada. Communication with Chontales was aided by the water borne craft which plied Lake Nicaragua. The East Coast was a series of river deltas, necessitating the supply of stations by boats. But in the north, where over half of the Guardia was operating in the field against a militant banditry, roads were conspicuous by their absence. Here and there a so-called "bull cart" trail existed. The name derived from the fact that the road had at one time been wide enough to accommodate a bull cart. Years of civil disorders had resulted in the trails falling into disuse, and the fast growing tropical foliage had soon filled in the open spaces. The usual trail consisted of a narrow path, often ill-defined. Patrol formations were single file, and supplies which went overland were carried on pack mules.

It was natural for the Marine officers charged with the administration of supply to turn to aviation for assistance in meeting the problems of distribution. Aviation made a wholehearted and effective response. There has probably never been better air support than was provided by the aircraft of the Second Marine Brigade during the years 1930 to 1933, when it was supporting the operations of the Guardia Nacional in Nicaragua.

In addition to assisting in the conduct of operations against the bandits by executing combat and reconnaissance missions, the Marine aircraft operated a daily mail and freight service between Managua, Ocotal and Jinotega. Frequent trips were made to the East Coast, and to other points. At least once a week planes made contact with every station in the bandit infested areas. The task of making contact with ground patrols during the coordinated drives was always difficult on account of the dense foliage, but even this task was discharged with gratifying success. In many instances food supplies were dropped to patrols engaged in extended operations.

Looking at the performance of the Guardia from the distance of five years it is difficult to adequately evaluate the service performed by aviation. Certain it is that the task of administering the affairs of the Guardia under the conditions that existed would have been infinitely more difficult of accomplishment had the sympathetic cooperation of the Marine air forces been lacking. The individuals who participated in these hazardous operations received and deserved the highest commendation.

VIII

In the summer of 1932 the personnel of the Electoral Mission arrived in Nicaragua and proceeded to set up the necessary administrative machinery. Rear Admiral Clark H. Woodward, U. S. Navy, was the Chairman of the Mission, and Lieutenant Colonel Charles F. B. Price, USMC, was his executive officer.

The Executive branch of the United States Government was now represented in Nicaragua by four distinct groups: The American Minister, The Honorable Matthew Hanna, headed the accredited diplomatic mission; Rear Admiral Woodward was the personal representative of the President of the United States as Chairman of the Electoral Mission; Brigadier General Randolph C. Berkeley, USMC, commanded the 2nd Brigade of Marines; and Lieutenant Colonel Calvin B. Matthews, USMC, (Major General and Jefe Director, G. N.) commanded the Guardia Nacional. Finally, all Marine and Naval personnel, except members of the Electoral Mission, came under the jurisdiction of the Commander of the Special Service Squadron, Rear Admiral St. Clair Smith, USN. That these groups worked together harmoniously is a tribute to the high character and superior leadership of the various group leaders. Invariably each kept his eye on the principal objective which was to establish an orderly government in Nicaragua, and to teach the native officials how to maintain it.

The task of conducting an impartial national election required infinite tact and patience on the part of the Guardia as well as on the part of the electoral personnel, as the following incident illustrates.

A certain Senator, a candidate for reelection on the Conservative ticket, was in possession of an arms permit from the Guardia Nacional, which controlled the possession of firearms in the country. The permit was green in color. He had occasion to visit a brother who was the proprietor of a motion picture house in a city in southern Nicaragua, and was presented with a pass to his brother's theater. The pass was also green in color. Sometime later he was journeying through the country, and happened to meet a Guardia who was on police duty. The Senator's revolver was conspicuously exposed, and the Guardia asked to see his arms permit. The Senator pulled out the green card and handed it to the Guardia. Seeing that it was a pass to a motion picture house, and believing that the Senator was trying to deceive him, he confiscated the weapon. The Senator became highly incensed, and reported to the Jefe Director that he had been persecuted by the Guardia on account of his Conservative sympathies. When the Jefe Director pointed out to him his error in presenting a motion picture theatre pass in lieu of an arms permit, he still was of the opinion that, on account of his position in society, he should have been unmolested. Considerable explanation was needed to broaden his viewpoint.

As the year 1932 advanced into the autumn and the time for the elections drew near, political tension throughout the country became more taut. People who ordinarily gave the impression of being sane and thoughtful members of society became unreasonable in their advocacy of their favorite candidate. The Liberal Party had selected Doctor Juan B. Sacasa as its candidate, while a former President of the Republic, don Adolfo Diaz, was the choice of the Conservatives.

Doctor Sacasa had been Vice President in the Solorzano government in 1926, when it was overthown by the Chamorroistas. It was he who had established the revolutionary government on the East Coast whose activities had caused the despatch of the Stimson mission. He was a man of high professional attainments, and a graduate in medicine from an American university. Sympathetic by nature, and a confirmed idealist, he hoped to solve Nicaragua's problems by a policy of peace and mutual understanding. During the regime of President Moncada he had represented Nicaragua as minister plenipotentiary in Washington.

During this period of political tension preceding the elections every attempt was made by the forces which were inimical to American participation in Nicaraguan affairs to frustrate the elections. Efforts to promote disaffection in the ranks of the Guardia were continuous. Opposing political forces tried to influence the Guardia to display favoritism. And the traditional enemies of society took advantage of the disturbed conditions to increase their activities in the more opulent urban areas of Managua, Granada and Leon.

The Guardia forged ahead under the leadership of General Matthews, whose term as Jefe Director had been specifically extended to permit him to close out American supervision of the Guardia. The staff of Guardia Headquarters functioned like a well oiled machine, team work being the dominant note. All of the Chiefs of Section, from Captain Bales, the Law Officer, to General Smith, the Chief of Staff, had had experience in the field. The staff, consequently, was zealous in its endeavor to justify itself as an agency whose purpose was to promote the welfare of, and remove all unnecessary annoyances from, the field forces. The accessibility of the staff to the field commanders, and the mutual confidence which prevailed between staff and line officers, went far towards promoting the efficiency of the Guardia, and towards simplifying the command task of the Jefe Director.

In the summer of 1932 Captain Puller returned from a year's schooling in the States. He immediately made his presence felt in the counter bandit activities in Jinotega. His contact at Loma Azul on the 31st of July with a patrol from Corinto Finca was the first of several extremely successful engagements during which he contributed a series of brilliant pages to the history of the Guardia and Marine Corps.

The command of his famous mobile patrol, Company M, was restored to Puller in August, and he was joined by his distinguished second-in-command, Lieutenant Lee. During the month of August they fought six major engagements. These two men formed such an extraordinarily effective combat team that it will not be amiss to single them out for special attention.

Puller, a wiry, stocky, deepchested individual of medium height, possessed a disarming Virginia drawl and a reticent manner. Actually he was hard as nails. His predilection for campaigning probably was inherited, for both his grandfathers were distinguished officers of the Confederate army during the Civil War. His decisive action was partially based on the confidence provided by extensive experience in guerrilla warfare. His understanding of Nicaraguan psychology, and his avidity for fighting, had enabled him to develop a mobile patrol of about forty men which was never defeated while under his command.

Lee, a tall, lanky native of Massachusetts, was a

woodsman by instinct, and became an apt complement to Puller. He was an unerring shot with any type of weapon, utterly fearless under all conditions, and possessed great physical endurance. His devotion to Puller was profound.

In early September, while exploring the country northeast of Jinotega, in the vicinity of the Coco River and Guapinol Mountain, Puller discovered quite by accident a trail which was some fifteen feet wide, and which had no visible junction with any of the established trails of the vicinity. Obviously secrecy had been a prime motive in its preparation. Puller suspected that it was designed to provide an avenue for swift travel from the remote sections of the lower Coco to the settled regions of Jinotega. He returned to his base at Jinotega to reorganize his patrol for extensive exploration.

On the morning of the 20th of September the patrol was prepared to depart for a month of operations in an unfamiliar locale. The scene at Jinotega City as the last minute inspections were made was not unlike that at any Guardia post under similar conditions. Lee looked over the pack animals, eighteen in number, which carried the blanket rolls and the sacks of food supplies—250 pounds of rice, 250 pounds of beans, a hundred pounds of salt, four latas (a tin containing 20 lbs.) of lard, a hundred pounds of coffee and a hundred atados (cakes) of dulce (crude sugar); Lee checked these items carefully.

Puller, at the same time, was checking the equipment of the men. With the exception of those who carried automatic weapons (Thompson sub-machine guns and Browning automatic rifles) each man was equipped with a Krag rifle and one hundred rounds of ammunition. Two men carried Springfield rifles and grenade dischargers. Each man, in addition, carried either an extra belt of ammunition for the automatic weapons or extra hand or rifle grenades. Swinging from the belt of every other man was a narrow bladed cutache, the native knife which is the badge of manhood, and proves useful in a fight or for clearing a trail through dense underbrush.

Food and ammunition; these were the things essential to a patrol operating in enemy territory.

As Puller completed his inspection he gave his final instructions. The dark faces of his men grinned knowingly as they listened to the familiar words: Lead out in single file with five to eight yards between men; no smoking except at halts; no talking; all to be constantly on the alert for indications of bandit ambushes. They knew the words by heart, yet no day passed that they were not reminded of them.

Bueno, hombres, vamanos. Puller fell in behind the leading man. He liked to be forward where he could look over the ground in advance of the patrol. Behind the first sixteen or seventeen men came the pack mules, each led by a Guardia. Just ahead of them strode Lee, a Lewis gun on a mule behind him. At the first sign of combat he would slash the pack straps with his sheath knife and have that gun in action in less time than it takes to tell it.

For five days the patrol plodded steadily into the northeast. The Pantasma river was crossed, and the hidden trail was entered. Progress was impeded by the necessity for destroying numerous bandit camps along the route. Nevertheless, the patrol had come seventy miles from its base.

On the morning of the 26th, as the tail of the patrol was leaving the river Auyabal, there was a crackling of rifle fire from the right. Puller signalled for a charge into the brush, and the resistance was quickly dissolved. Just a "hit and run" ambush designed to pick off the officers.

Pressing forward, the patrol crossed a ridge and dropped into another river bed. On the opposite side the ground adjacent to the trail rose to form a ridge in the shape of an inverted "V," with the trail running through the apex. The sun was shining for the first time in six days. A pair of brightly colored Lapas (macaws) circled overhead, screeching raucously. Puller was still in position as second man in the point. Suddenly his alert eye spotted the black barrel of a Browning automatic rifle sliding around the trunk of a tree. Instinctively he dropped to the ground, signalling to the men behind to do the same. The leading man had also dropped, and not a moment too soon. The thudding Browning seemed to be the signal for the detonation of an inferno of explosives as the lead from its muzzle neatly bisected the man immediately behind Puller, who had been slower in his instinctive reaction.

The underbrush along the right of the trail from the stream bed to the apex of the "V" spewed forth bullets from a mass of weapons at a range of about fifty yards. There was no question about this being the real thing. Puller had pricked the nerve center of the bandit organization.

The experience and discipline of the patrol saved it from annihilation. After hitting the ground, the men gradually worked up the slope, taking advantage of cover and commanding positions in the terrain to gain fire superiority. Vivas for Sandino were mingled with wails of "Mamita" from the bandit side, while the Guardia countered with rare epithets designed to provoke their opponents into exposing themselves.

Lee had early been wounded in the right arm. As he attempted to raise himself to a better vantage point he was rendered unconscious by a bullet which grazed the side of his head. He was "out" for nearly twenty minutes. When consciousness returned he lost no time in getting his pet Lewis gun into action, with telling effect.

In the meantime, Puller's slender line of veterans had been fired on from the rear as it was engaged in gaining the ridge to the right of the trail. The bandits had prepared an all around ambush. Not disturbed by this new development, Puller chose to ignore his rear and concentrated with renewed vigor on the hostile forces ahead of him. Finally, with the added assistance of Lee and his Lewis gun, the ridge was gained, and fire was turned on the bandit positions on the opposite side of the trail. A few well placed rifle grenades soon discouraged further opposition, and the Guardia found themselves in possession of the field after an hour and a quarter of fighting. Sixteen bandit dead remained on the field. An inspection of the bandit position showed that it must have been occupied by at least two hundred

men. Empty cartridge cases indicated how desperately they had tried to destroy this handful of Guardias.

On the Guardia side one man had been killed outright, and one was mortally wounded. Three others, including Lieutenant Lee, had been slightly wounded. With the wounded men in need of medical attention it was necessary for Puller to turn back towards his base, one hundred miles away. Twice during the return trip the patrol was ambushed, but succeeded in overcoming the opposition. On the 30th of September it arrived in Jinotega.

In his official report of this patrol Puller made the laconic observation: "In the days of wooden ships Lee would have been an iron man," a gallant tribute from one valiant Marine to another.

IX

Despite the wealth of wild rumors and considerable well founded apprehension, the elections on the 6th of November took place without an untoward incident. When the votes were tabulated at the close it was found that Doctor Sacasa and his running mate, Doctor Rodolpho Espinosa, had attained an impressive majority. Once the outcome was announced the tension which had been so marked during the campaign disappeared as if by magic. People returned to their former normal condition of mind, and the economic processes of the country regained their traditional position of paramount interest.

The time had now arrived to commence the process of transferring the higher executive positions in the Guardia to the native officials who had been selected by the President-elect as being acceptable for those positions. It has been pointed out that a military academy for the training of prospective officers was established at Managua in the winter of 1929-30. At that time, lacking specific information to the contrary, it was presumed that the duration of American supervision of the Guardia would continue for a period of years, as had been the case in Santo Domingo and Haiti. In that event the officers who would eventually assume the command positions would be those who had passed successively through the junior grades and would, by the time they reached command rank, have attained the requisite maturity and experience. However, the announcement by the State Department in February, 1931, of the intention of our government to withdraw all Marines immediately after the inauguration of the new President of Nicaragua on January 1, 1933, made apparent the necessity that the officer procurement plan be so revised as to provide for its completion before that date.

On the 15th of June, 1932, the Jefe Director addressed a letter to the American Minister in which he recommended that fifty American officers be retained in Nicaragua for two months after the inauguration of the new President in order to provide for a greater degree of familiarity on the part of the newly commissioned native officers with their jobs, and to assure that the military machine was working smoothly. The Minister communicated this information to the State Department, and on July 19, 1932, the Secretary of State, in a despatch to the American Minister, reiterated the desire of the Administration that all Marines be withdrawn immediately after the inauguration.

The Jefe Director, General Matthews, forthwith submitted an alternate plan which was, in effect, that immediately upon the nomination of the candidates who were to head the tickets of the respective parties, each candidate compose a list of names, on which both parties were given equal representation, of those individuals who would be acceptable as senior officers of the Guardia should he be elected; that immediately after the election had been decided the present President appoint to the higher commands the individuals whose names were on the list of the successful candidate; those officers to work alongside the American officers who held the corresponding positions; the appointments to be confirmed by the incoming President after his inauguration.

This plan was approved by the State Department, and on October 20, the Jefe Director addressed identical letters to Doctor Sacasa, candidate of the Liberal Party, and to General Chamorro, who represented don Adolfo Diaz, the candidate of the Conservative Party, who was then in the United States, informing them of the plan, and requesting that they each submit a list of fifty names in accordance with the terms of the plan.

The lists were prepared and turned over to the Jefe Director. When the election had been decided the list of the successful candidate, Doctor Sacasa, was used as the basis for the appointment of mature officers to the senior grades. In addition to the Jefe Director, thirty-eight such appointments were made. The graduates of the Military Academy, and those officers who had been commissioned from the ranks, were promoted to grades not higher than captain, due to their youth and inexperience.

Doctor Sacasa selected General Anastacio Somoza to be the first native Jefe Director. General Somoza had received his education at the University of Pennsylvania, and during the regime of President Moncada he had served as Vice Minister of Foreign Affairs. His wife, an exceptionally charming and cultured lady who was perfectly at home in any strata of international society, was a niece of the President-elect.

The 15th of December was set as the date for the withdrawal to Managua of all Marines who were serving with the Guardia in the hill stations. There remained only the task of seeing the new President safely installed in his high office, and the momentous undertaking would be completed.

During the regime of President Moncada the railway system of the republic had been extended. These extensions were considered by the President as part of the contribution which he had made to posterity, and he was eager to have them opened to traffic with the customary ceremonies before he left office. The more important of the extensions was the branch which extended north from Leon to El Sauce, on the fringe of the area in which Sandino conducted his activities. Having failed to make good his threat to prevent the holding of the elections, Sandino now determined to give rein to his spite for General Moncada by thwarting the President's

plan to personally inaugurate the El Sauce branch. He made known his intention far and wide.

Rumors of Sandino's threat floated into Guardia headquarters at Managua. Experience had taught that rumors were to be taken with a grain of salt, else manpower would soon be exhausted by useless marching to and fro. But as the day set for the inauguration (December 28) approached, the rumors persisted and multiplied; and as a precaution against the occurrence of any act which might reflect unfavorably on the record of American activities in Nicaragua on the eve of our withdrawal, General Matthews decided to send a patrol into the railway zone.

All the trail-bitten veterans of the Guardia campaigns were available in Managua at this time. It was logical that Colonel LeRoy P. Hunt, himself a seasoned veteran of the battles along the Western Front in France, as well as a former Commander of the Northern Area, should select for patrol leader the man who had been most successful in prior field operations. And so it was that early on the morning of December 26th Captain Puller entrained at Managua with seven Guardia seasoned Marines and sixty-four Guardias, all hand picked, and headed for Leon and the El Sauce branch line. Note well that this patrol was despatched as a precaution, as no specific information had been received that any bandit group was operating in the railway area. Napoleon held that luck was an element which was not to be ignored in the successful officer. The selection of the time and date of departure of this patrol was a matter of luck, but behind that was the fact that the Jefe Director had the judgment which caused him to make a wise decision and take no chances when potential carelessness implied a disaster with momentous reverberations.

The northern terminus of the El Sauce line was still a couple of kilometers south of that town, and workmen were rushing the laying of rails over the intervening gap. At about half past four o'clock on the afternoon of the 26th, as Puller's train, consisting of an engine and box cars, was proceeding up a grade south of the construction camp at the point of rails, Lieutenant Stevens, atop the forward box car, observed two natives on the track ahead, and asked a trainman if he recognized them as members of the construction gang. As the trainman opened his mouth to reply a familiar rat-tat-tat of machine gun fire burst from both sides of the track, and a spray of lead swept the train.

Puller, with Lieutenants Bunn and Hays and half of the Guardia, descended to the right of the track and quickly formed a skirmish line. The balance of the patrol deployed to the left under Lieutenant Lee. The bandits were in possession of a good position among the foundations of old Indian ruins at the top of the rising ground ahead. The eight automatic weapons which they were operating indicated that their numbers were not small.

There was little cover on the right of the railway embankment, and Puller had difficulty in getting a flanking party around the bandits' left flank. The farther the flanking party moved to the right, the longer the bandit line was found to be. Bunn, who was in charge of the encircling group, suddenly discovered that the bandits were attempting a similar maneuver. Bunn tossed his pistol to an adjacent Guardia, taking his Browning automatic rifle in exchange. Without attempting to take cover he advanced steadily towards the oncoming group, raking the bandits with short bursts of automatic fire from the hip position. This daring and uncompromising action was too much for the bandits. Those who remained on their feet took to their heels, and no further aggressive action at this end of the line was attempted. For this act Bunn later received the Navy Cross.

Puller managed to work his way over to the left side of the railway embankment, where Lee and the balance of the Guardia were found to hold a good position along a ditch. Seeing that they were giving a good account of themselves, Puller recrossed to the right flank, and made his main effort with that flank. After an engagement that lasted for an hour and ten minutes the bandits relinquished the field, leaving thirty-one of their number dead behind them. Sixty-seven riding animals and a quantity of arms and ammunition were captured.

It developed that, at the moment when the train with Puller's patrol was approaching the point where it was fired upon, Umanzor, one of Sandino's aggressive lieutenants, with a group of 250 men, was in the act of raiding the commissary of the construction camp, which lay a short distance beyond. Seven of the straw bosses of the construction gang were lined up for execution. When Umanzor heard the train he thought it carried ammunition for the Guardia garrison at El Sauce, accompanied by a small train guard. He sent a hundred men to effect its capture. When the train disgorged a combat patrol of Guardias Umanzor threw in his other 150 men, and led the attack himself, with the result we have seen.

Probably no more dramatic and spectacular situation has ever been devised, even in the realm of fiction; and yet this affair actually occurred as has been related. And the year was 1932.

On the 28th of December the President formally inaugurated the railway. Participating with him were members of his administration and the Jefe Director of the Guardia.

Four days later Doctor Juan Bautista Sacasa took the oath of office as President of the Republic on La Loma Field, below the Casa Presidential. Immediately following the ceremony the Jefe Director and his staff officially handed over the Headquarters of the Guardia to General Somosa and his staff, and the great adventure was over. There but remained the act of departing from Nicaraguan soil.

At daylight the following morning a huge crowd assembled at the railroad station in Managua. A curious silence lay like a cloak over the assembled multitude as the Marines entrained for Corinto and the homeward bound transports. Ordinarily the crowd would have been laughing and joking. But they were now faced with the stark realization that the men who had provided security for their persons and homes for over five years were departing, and sensing their impending loss they were deeply touched. Perhaps they recalled those in-

stances when Marines had given them a helping hand when they were in distress; or perhaps they recalled the pine coffins which had departed from that same station with distressing regularity during those five years: coffins bearing all that was mortal of young men who, in their search for high adventure, had found in this picturesque land an opportunity to aid a neighboring people to achieve a larger measure of peace and happiness.

The enlisted men of the Marine Corps who had served as officers in the Guardia were organized into a platoon which provided the necessary security for the departing troops, and which swung aboard the last train as it departed. What memories must have raced through their minds as they regarded for the last time the shifting panorama of familiar scenery. Off to the north the azure colored mountains towered majestically in the early morning sunlight. Over there lay Esteli, Ocotal, Jinotega, Quilili, San Juan del Telepaneca, Jicaro, El Chipote and Guapinol; all names that recalled the hardships of the trail and the excitement of the battle. The train passed La Paz Centro, and someone recalled that it was here Captain Buchanan fell, the first officer to be killed in this campaign.

At Corinto the naval transport Henderson was tied up at the sole pier the port boasted. Anchored in the fairway was the Antares. Here the evacuating force came to the parting of the ways; those destined for the East Coast boarded the Henderson; those bound West went to the Antares.

Standing at the entrance to the pier General Matthews saluted his comrades of the Guardia with a final word of appreciation and a firm handclasp. Few eyes were entirely dry as these sturdy adventurers went over the sides of their respective ships. Together they had met many a crisis; together they had endured the hardships known only to the pioneers of civilization. Such relations breed an intimacy of brotherhood which is rare and precious. In an age of iron ships these stalwarts had proved themselves to be iron men, while their comrades of the air were truly winged gladiators.

AFTER THIRTY SEVEN YEARS

■ Two old and friendly organizations meet again on the same battle front. They are the Second Battalion of the Royal Welch Fusiliers and the U. S. Marines who, in 1900, participated jointly in the Relief Expedition of China. The Fusiliers were ordered from the British garrison at Hong Kong last month while the Marines were already stationed in Shanghai. However, missing are the Commanders of the days of 1900—Colonel Bertie and Captain Gwynn—of the Fusiliers whose place is taken by Colonel Hewitt; and of the U. S. Marines, Colonel Waller, whose place is taken by General Beaumont. While it is safe to say that among the files not one man who saw action in 1900 is present today; but the spirit of those two organizations is as friendly as ever.

This reunion will occasion opportunity for a renewal of such remembrances as the ceremonies of June, 1930, when General George Richards presented the Fusiliers the original manuscript of a John Philip Sousa march dedicated to the Second Battalion of the "Royal Welch Fusiliers" perpetuating their comradeship with the First Battalion, U. S. Marines, formed in North China in 1900. The ceremony took place at Tidworth, England. It was upon this same occasion that General Dobell presented to General Richards for the Marine Corps two volumes of the regimental records of the Royal Welch Fusiliers which accounted for their military conduct as far as the World War. This same Second Battalion of the Royal Welch Fusiliers welcomed the Marines attached to the ships of the American Training Squadron for Midshipmen when they visited England several summers ago. It was this same outfit that was selected to act as Guard of Honor for General Pershing in June, 1917, at Liverpool.

Of them General Lejeune wrote, "That common service of our First Regiment in the Boxer War in North China in 1900 with those temporary British sea soldiers of one and one-half centuries ago has ever remained the proud memory of the entire United States Marine Corps. To receive this evidence that the officers, past and present, of the Royal Welch Fusiliers have not forgotten that association awakens the most agreeable sentiments.

"The United States Marine Corps learned much from the Royal Welch Fusiliers. That regiment, we found, exemplified in many ways the great value of historic tradition as the proper foundation of esprit de corps. It is needless for me to say that it has been and ever will be our effort to indoctrinate the American Marine with this essential of military efficiency. That the officers of the United States Marine Corps, present and future, should now be the possessors of these attractive volumes, containing the complete record for two and one-half centuries of the distinguished services of that famous regiment adds to their equipment in these efforts to make the American Marine a better soldier."

While General Waller, whose interest in them was always keen, recalls, "It has long been the wish of many of us of the Marine Corps that some memorial be erected to commemorate in enduring form our comradeship with the Royal Welch Fusiliers. The British Marines, some years ago, placed in The Mall, London, a tablet commemorating our joint service with them in defense of the Legations at Peking.

"He spent his last days as a resident of Philadelphia, and made, 12 years ago, a proposal so to memoralize that friendship and association. He wrote, as the senior of the surviving officers of the Marine Corps of the China Relief Expedition of 1900, saying that all of us cherished the memory of that comradeship in arms. The Welsh regiment, he said, shortly after the termination of the China campaign, sent him a large silver loving cup, beautifully inscribed, in memory of North China and of

(Continued on page 65)

SELECTION OF NON-COMMISSIONED OFFICERS FOR PROMOTION

LIEUT. COLONEL R. R. WRIGHT, USMC

■ Inquiries from the service at large indicate a lack of knowledge regarding the details of the present method for the selection of non-commissioned officers of the higher grades for promotion. It is hoped that the dissemination of information concerning the normal procedure of these Selection Boards will prove of interest tc both officers and enlisted men of the Marine Corps.

Whenever the current eligible list for any of the higher ranks of non-commissioned officers is nearly exhausted, an estimate is made of the number of promotions to be made to this rank during a six-month period. A board is then appointed by the Major General Commandant, usually consisting of three officers, and this board is ordered to select a definite number of the best qualified men under consideration for inclusion on a new eligible list for that rank. The board is furnished with a complete list of the eligible non-commissioned officers together with the complete military record of each man. Normally these are men serving in the next inferior rank who meet the requirements of the Marine Corps Manual for promotion, including at least one recommendation that has been received in the past two years for promotion to the rank under consideration.

At the first meeting of the board certain features of procedure are settled and decision is made regarding the weights to be given for favorable and unfavorable entries on the records. These details involve among other things the determination of desirable age limits, length of service, service in present rank, number of excellent discharges, good conduct medals and bars, letters of appreciation and commendation, decorations, engagements in action, tours of foreign or sea duty, educational qualifications including courses completed in the service such as offered by the Marine Corps Schools or the Marine Corps Institute, and offences, both courts martial and Commanding Officer's punishments. It may be decided that minor offences committed in the early part of a man's military service, especially when the latter part of the record is clear, will carry less weight than offences committed in subsequent enlistments.

After these points are determined, rating sheets are mimeographed which will show the important factors of the military record of each man and the weights to be assigned under the various headings. The space for "Remarks" is utilized for other pertinent information such as dates and the nature of letters of recommendation, decorations, engagements, all offences, letters of indebtedness, summary of educational qualifications, markings in Service Record Books and on fitness reports, and temporary details involving the performance of duty appropriate to the rank under consideration, or duty as an officer in the Garde d'Haiti or Guardia Nacional.

These rating sheets vary in details for various boards, and are frequently modified and improved. A copy of such a sheet used by a recent board is shown below.

RATING SHEET FOR NCO PROMOTION BOARDS

APPROVED .....

Name ..... Rank ..... Date of Rank .....

		1	2	3	4	5
Age	1st Pay Grade		25-30	30-35 55-60	35-40 50-55	40-50
	2nd Pay Grade	over 55	50-55	20-25 45-50	25-30 40-45	30-40
	3rd Pay Grade	over 50	18-20 45-50	20-25 40-45	25-30 35-40	30-35
Service	1st Pay Grade	5 yrs. or less	10 yrs. or less	15 yrs. or less	20 yrs. or less	25 yrs. or less
	2nd Pay Grade	21 yrs. or over	5 yrs. or less	10 yrs. or less	15 yrs. or less	20 yrs. or less
	3rd Pay Grade	21 yrs. or over	20 yrs. or less	5 yrs. or less	10 yrs. or less	15 yrs. or less
SERVICE IN RANK		less than 2	less than 5	less than 7	less than 10	less than 12
EXCELLENT DISCHARGES ALL SERVICES		1	2	3	4	5
G. C. MEDALS AND BARS		1	2	3	4	5
DECORATIONS		0	Foreign	S.S. or P.H.	N.C.	D.S.C.
LETTERS OF COMMENDATION		0	1	2	3	4
ENGAGEMENTS		0	1	2	3	4
FOREIGN AND SEA SERVICE		1	2	3	4	5
GENERAL COURTS		2	1	0	0	0
SUMMARY COURTS		3	2	1	0	0
DECK COURTS		4	3	2	1	0
C. O. PUNISHMENT		5	4	3	2	1 or 0
LETTERS OF INDEBTEDNESS		4	3	2	1	0

REMARKS: .....

The next step is to examine each of the records from the time of original entry into the Marine Corps, noting all pertinent information on the rating sheet. This must be done with care in order that every matter of record either favorable or unfavorable will be noted and considered by the board. After all rating sheets have been prepared they are arranged in a tentative order of preference. The board then discusses each case and changes the relative standing of individuals if this rechecking develops the desirability of such action. At the conclusion of this rechecking, the names are arranged in the final order of merit. The board then reports its finding and if approved by the Major General Commandant the new eligible list becomes the basis of promotion to that rank as soon as all men shown on the previous eligible list have been promoted.

This system of promotion by selection for the higher ranks of non-commissioned officers, although not perfect, assures to each man eligible for consideration under the provisions of the Marine Corps Manual, regardless of station or duty, consideration for advancement based on his value to the service as shown by his military record.

THE MARINE CORPS EQUIPMENT BOARD

MAJOR JOHN KALUF, U. S. MARINE CORPS, *Secretary*

■ One thing we can be reasonably certain of in the next war and that is—that much of the equipment we start out with will be outmoded and rendered obsolete before it is ended. War furnishes a tremendous stimulus on the part of the parties engaged, both civilian and military, toward perfecting some means of conducting the war which will checkmate the enemy and place him at a decided disadvantage. Witness the tank, poison gas, chemical shell and flame throwers of the last war. It is with this in mind that all armies of the world are feverishly trying to perfect their equipment in this day of mechanized warfare in order if possible to steal a march on the other fellow. Up until the World War the conduct of War was pretty much an orthodox procedure, fought principally by armies in the field hurling projectiles at one another with large and small calibre guns. As a matter of fact military developments lagged considerably behind progress in peaceful lines of endeavor. Times have changed and now there is hardly a new development that is not scrutinized carefully by military men to determine what use can be made of it, if any, toward conducting a war.

Up until the World War the needs of the Marine Corps were quite simple and standardized. Some rifles, a few machine guns, some landing guns, an occasional push cart (all standard make), were about all that seemed to be required. The World War introduced the Marines as well as everybody else to show new equipment. After the War was over there was a tremendous surplus of all manner of war material, much of which could be had merely for the asking. Warehouses were full of 75's with all their attendant gear, trench mortars, trucks, motorcycles, fire-control gear, field glasses and anything else that you might mention. A lot of this found its way into Marine Corps hands and for a number of years after the War this surplus constituted the principle source of supply. It also served to retard to some degree all ideas of development. Yesterday's bread had to be eaten first before any fresh loaves were baked. Eventually the old Libertys and the old FWD's and the old Quads and the old GMC's wore out and must needs be replaced. Unfortunately about the time this contingency was foreseen the repercussions of war-time spending set in and a wave of economy was encountered so that it was necessary to make the old equipment do just one more turn. Consequently when it became absolutely necessary to replace all this obsolete gear it took more money than would have otherwise been needed. It soon became apparent that the responsibility of planning a progressive replacement program was too great for any one office to carry. Having before it a good example in the Army Ordnance Board, with which certain officers at Headquarters were well acquainted, and other boards such as the Infantry Board, it was natural that the Marine Corps should turn to some such similar procedure for the solution of its problem. Consequently the Marine Corps Equipment Board was established by order of the Major General Commandant in 1935. Its composition and its purpose were set forth in Marine Corps Orders and need no repetition here. In order to keep the record straight it should be noted that prior to this time there had been established at Quantico a Technical Board whose duties were somewhat similar to those of the present Equipment Board although considerably narrower in scope. This Board was dissolved in 1933 and all material matters requiring consideration thereafter were referred to the Fleet Marine Force for recommendation. Neither of these arrangements proved entirely satisfactory and so after considerable thought and study on the part of officers at Headquarters Marine Corps a recommendation was submitted to the Major General Commandant regarding an equipment board which was adopted and originally promulgated in Marine Corps Order No. 87 of 1935. Membership of this board was confined by order to a stated number of officers from different departments, divisions and other Marine Corps activities. Marine Corps Order No. 126 of 1937 modified this membership to the extent that it is "composed of not less than 10 nor more than 20 officers detailed by the Major General Commandant."

Owing to the wide range of subjects which come before the Board practically all work is done through the agency of committees composed of those members of the Board who have the particular knowledge or experience to deal with the subject. For example — all matters relating to Artillery are referred to the committee on Artillery, composed of members experienced in field, base defense and anti-aircraft artillery, who take the matter in hand and prepare their report to the Board as a whole who in turn make the final recommendation to the Major General Commandant. These committees may request the services of other officers not attached to the Board to assist them in making a study or test of the particular subject with which they are dealing. Thus the Marine Corps Equipment Board becomes in a sense a Board composed of boards. This must of necessity be so for the reason that the technical knowledge required to deal adequately with all phases of military equipment such as infantry, artillery, transportation, engineering, quartermaster, etc., can hardly be expected to reside in each and every member of the Board.

Many officers throughout the Corps take a lively interest in their profession which is manifested by the number of different ideas of equipment which come before the Board. This is a healthy state of affairs and should be encouraged to the fullest possible extent. However, it should be borne in mind by all officers that all good ideas can not always be accepted. There is always a wide gap between the ideal and the practicable. An idea about certain items of equipment may be basically sound and highly desirable from the standpoint of usefulness. But there are other angles equally important from which the subject must be

viewed before the Board can honestly recommend its adoption. First of all there is the matter of cost. There is only a certain amount of money alloted each year, which is a matter of common knowledge, but frequently lost sight of by the enthusiastic young inventor. What will it cost? Is this one item so highly desirable that it should be procured at the expense of some other highly desirable item? Or can we use some other object, not quite as good, but less expensive that will leave us a little money in order to procure some other item of equipment which is also highly desirable? These are some of the questions that must be answered by the Board.

Then there is the question of procurement. Can this object be turned out in sufficient quantity for our needs *in time of war?* We may well ask ourselves the question —and it is a pertinent one—Why use something in peacetime that we are not going to be able to get in time of war?

Why not stock up in time of peace with the equipment we are going to need in time of war? Again this can be answered by the simple word—cost. There just isn't enough money and even if there were it might not be advisable in every instance because of deterioration and that other bug-bear—obsolescence. Who today can stand up and say that what is a splendid idea today will be worth a hoot tomorrow?

But all this should not preclude our going ahead with our inventions, our researches and our tests. Nothing is good which can be improved upon. The idea is not that we should accept blindly everything that the Army uses. Let us rather go ahead with our ideas and show the Army where they can improve upon their equipment and make changes which will not only benefit us but themselves. Nobody inquires as to the birthplace—or birth certificate—of a good idea these days. Finally, let us all realize that the Marine Corps has a particular mission, peculiar to itself alone, about which we will find no answers in the back of the book. The last word has not been written about landing operations by any means. As its mission is different so to some extent must the equipment of the Marine Corps be different and who shall say what it ought to be. Along these lines let every Marine concentrate his thoughts and present his ideas and not be discouraged when his pet idea comes back from the Equipment Board with the remark, "Sorry, but we can't see it your way."

NAVY DEPARTMENT

HEADQUARTERS U. S. MARINE CORPS

WASHINGTON, D. C.

6 August, 1937.

From: The Major General Commandant.

To: Brigadier General Frederic L. Bradman, USMC, President, The Marine Corps Equipment Board, Marine Barracks, Quantico, Virginia.

Via: The Commanding General.

Subject: New precept for the Marine Corps Equipment Board.

References: (a) Marine Corps Order No. 126 (Series 1937).

(b) MGC letter No. 1540-10 ACC-njw, dated 22 July, 1937.

1. The Marine Corps Equipment Board is hereby appointed in accordance with the provisions of reference (a), to be composed of yourself as President and of the following members:

Colonel Seth Williams, A.Q.M.,
Lt-Col. Allen N. Turnage, USMC,
Lt-Col. Arnold W. Jacobsen, USMC,
Lt-Col. Thomas E. Bourke, USMC,
Lt-Col. Lemuel C. Shepherd, Jr., USMC,
Lt-Comdr. John B. O'Neill, (MC) USN,
Major Ray A. Robinson, USMC,
Major Bert A. Bone, USMC,
Major Curtis W. LeGette, USMC,
Major Joseph H. Fellows, USMC.
Major Kenneth A. Inman, USMC.
Captain Walter A. Wachtler, USMC,
Captain Lyman G. Miller, USMC,
Captain Thomas C. Green, USMC,
Captain Edward W. Snedaker, USMC,
Captain Hartnoll J. Withers, USMC, and
First Lieut. Nelson K. Brown, USMC.

2. Major John Kaluf, USMC, is appointed Secretary of the Board.

T. HOLCOMB.

CONGRATULATIONS

The Marine Corps Association congratulates the following named officers:

Major General Charles H. Lyman, U.S.M.C., who has been awarded the decoration of the Order of Military Merit, First Class, with Miniature and Diploma, by the President of the Dominican Republic.

Colonel Frank E. Evans, U.S.M.C., who has been awarded the French Legion d'Honneur Diploma by the President of the Republic of France.

Colonel Edward A. Osterman, U.S.M.C., who has been awarded the Distinguished Service Medal of Haiti by the President of that Republic.

Lieutenant-Colonel Maurice G. Holmes, U.S.M.C., who has been awarded the Diploma of the Star of Abdon Calderon, second class, by the President of the Republic of Ecuador.

Lieutenant-Colonel James Roosevelt, U. S. Marine Corps Reserve, who has been awarded the Order of the Southern Cross of Brazil by the President of the Republic of Brazil.

Major William E. Riley, U.S.M.C., who has been awarded the Diploma of the National Order of Honor and Merit of Haiti, in the grade of Officer, by the President of the Republic of Haiti.

Captain John D. Blanchard, U.S.M.C., who has been awarded the Order of the Southern Cross of Brazil by the President of the Republic of Brazil.

Captain Harold D. Hansen, U.S.M.C., who has been awarded the Diploma of the Star of Abdon Calderon, third class, by the President of the Republic of Ecuador.

Captain Taylor Branson, U.S.M.C., who has been awarded the decoration of the Order of Boyaca, in the grade of officer, by the President of the Republic of Columbia.

LEGISLATION

■ The first session of the 75th Congress, which convened January 5, 1937, ended with adjournment on August 21, 1937.

The May number of THE GAZETTE noted the passage of the Naval Appropriation Act and the following five bills:

S. 1130, Exchange of lands at San Diego.

S. 1455, Acceptance of foreign decorations authorized.

S. 1314, Reimburse fire loss, Signal battalion, Quantico.

S. 1310, Relief of Mrs. Cesaria Del Pilar.

S. 1113, Commissary privileges for widows.

MARINE BAND

The bills to authorize the Marine Band to attend and give concerts at the United Confederate Veterans' Reunion at Jackson, Miss., June 9 to 12, 1937, and at the National Encampment of the Grand Army of the Republic to be held at Madison, Wis., September 5 to 10, 1937, were enacted, and the necessary funds appropriated to defray the expense.

The bill H. R. 5851 to authorize the attendance of the band at the 39th National Encampment of the United Spanish War Veterans at Columbus, Ohio, August 22 to 26, 1937, and the bill H. R. 5556 to authorize the band to attend the National Encampment of the Veterans of Foreign Wars to be held in Buffalo and Niagara Falls, N. Y., August 29 to September 3, 1937, were not passed.

No action has been taken on bill H. R. 8039 to authorize the attendance of the Marine Band at the observance of the 75th Anniversary of the Battle of Gettysburg on July 1, 2, and 3, 1938.

ASSIGNMENT OF AQM AND APM DUTY

S. 2521, to authorize the assignment of officers of the line of the Marine Corps to assistant quartermaster and assistant paymaster duty only, became a law on July 28, 1937. The act reads:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That officers of the line of the Marine Corps of the grades of major, lieutenant colonel, and colonel may, upon application, and with the approval of the Secretary of the Navy, be assigned to assistant quartermaster and assistant paymaster duty only: *Provided*, That when so assigned they shall retain the lineal position and precedence which they now hold or may later attain and shall be promoted, retired, and discharged in like manner and with the same relative conditions in all respects as are now or may hereafter be provided for other officers of the line of the Marine Corps, except as otherwise provided: *Provided further*, That the recommendation of selection boards in the cases of officers assigned to such duty shall be based upon their comparative fitness to perform the duties prescribed for them: *Provided further*, That officers of the grades of major and lieutenant colonel assigned to assistant quartermaster and assistant paymaster duty only in accordance with this Act shall, on promotion up to and including the grade of colonel, be carried as additional numbers in grade: *And provided further*, That the number of officers so assigned in accordance with this Act in any one year shall be in accordance with the requirements of the service as determined by the Secretary of the Navy.

OTHER ACTS PASSED

The bill S. 774, incorporating the Marine Corps League, was approved August 4, 1937. The bill names Major General John A. Lejeune, U.S.M.C., Retired, as honorary national commandant.

So much of the act of March 4, 1925, as provided that the total personnel of the Naval Reserve Officers Training Corps should not exceed 1,200, was amended by the act approved August 6, 1937, so that the total personnel "shall not exceed at any one time more than 2,400."

S. 1918, to authorize the recommendation for the award of a decoration to Acors Rathbun Thompson, formerly private, Fifth Marines, American Expeditionary Forces, "to be considered by the proper boards or authorities, and such award made to said Thompson as his said conduct merits," was approved August 23, 1937.

An Act, approved June 18, 1937, provided "That John W. Thomason, Major, United States Marine Corps, and Robert Slover, gunnery sergeant, United States Marine Corps, be awarded, and each is hereby authorized to receive, a Navy Cross, to be prepared under direction of the Secretary of the Navy, for extraordinary heroism in the battle of Soissons on July 18, 1918, in destroying a machine-gun nest and capturing two machine guns.

An additional sum for the payment of claims of certain officers and enlisted men for personal losses as a result of the earthquake which occurred at Managua, Nicaragua, on March 31, 1931, is provided by bill H. R. 4689, approved August 25, 1937. Included in the list of claimants is Captain Charles L. Pike, U.S.M.C.

MARINE CORPS RESERVE

Because of the expense involved, making the proposed legislation not in accord with the program of the President, no action was taken on the proposed legislation drafted by the Navy Department to reorganize the Reserve, which was included, with a few changes and additions, in bill H. R. 6634, introduced by Mr. Maas, "To provide for the creation, organization, and maintenance of the Transferred Regular Reserve of the United States Navy, the United States Naval Reserve, the Transferred Regular Reserve of the United States Marine Corps, the United States Marine Corps Reserve, and for other purposes."

Pensions for disability incurred in peace-time service of Reservists were provided in H. R. 2887, approved June 23, 1937. Active service, including service for training purposes, performed by a Reservist, whether officer or enlisted man, shall be considered as active military or naval service for the purpose of granting benefits.

Rank of M. G. C. and Staff Heads on Retirement

A bill introduced by Mr. Maas, H. R. 8105, provides that any officer of the Navy or Marine Corps who has served, is now serving, or shall hereafter serve as Chief of Naval Operations, as Chief of a Bureau of the Navy Department, as Judge Advocate General of the Navy, as Major General Commandant of the Marine Corps, or as head of a staff department of the Marine Corps, and who shall hereafter retire either during such service or at any time thereafter, shall be retired with the rank held by him and with 75 per centum of the active-duty pay now or hereafter provided by law for the grade or rank which he held, as Chief of Naval Operations, Chief of Bureau, Judge Advocate General, Major General Commandant, or head of a staff department of the Marine Corps.

Claims

Relief bills were enacted as follows:

H. R. 2978, approved May 6, 1937, to pay (1) Mrs. M. N. Shwamberg, as full indemnity for personal injuries sustained by her as the result of a collision between a public jinrikisha in which she was riding and a Marine Corps ambulance on Seymour Road, Shanghai, China, on January 31, 1935, Mex. $1,000; (2) the Country Hospital, Shanghai, for treatment furnished to Mrs. Shwamberg on account of this accident, Mex. $374.50; (3) Dr. Ed Birt, Shanghai, for medical treatment furnished Mrs. Shwamberg on account of this accident, Mex. $170.

H. R. 2935, approved June 28, 1937, to pay to Montrose Grimstead the sum of $2,500 for injuries sustained when he was struck by a Marine Corps ambulance near Owings Mills, Baltimore County, Md., in April, 1919.

S. 1048, approved July 16, 1937, to pay to Alexander E. Kovner, of San Francisco, Calif., $5,000 for cost of hospital and medical care, pain and suffering, and permanent disability, resulting from being struck by a truck belonging to the Third Brigade of United States Marines, in the city of Tientsin, China, on May 14, 1928, such accident being due to the negligence of the driver of the truck.

Bills to pay foreign governments in settlement of claims of their citizens against the United States arising from operations of the Marines, were enacted as follows:

H. R. 2925, approved May 6, 1937, to pay Great Britain for the account of the estate of Samuel Richardson, as full indemnity of the death of Samuel Richardson, who is alleged to have been killed at Consuelo, Dominican Republic, by United States Marines on May 1, 1921, the sum of $1,000.

H. R. 2912, approved May 6, 1937, to pay Great Britain for the account of the Shanghai Electric Construction Company, Ltd., for losses sustained as result of a collision between Marine Corps truck No. 1130 and tramcar B. 168 owned by the company in Shanghai, China, on November 29, 1929, the sum of $78.60.

H. R. 2909, approved May 6, 1937, to pay Great Britain for the account of N. J. Moosa, a British subject, for personal injuries received by him as result of a collision between a broker's trap in which he was riding and a Marine Corps truck in Shanghai, China, on September, 13, 1928, and for medical and hospital expenses incurred by him in connection with his injuries, the sum of $15.59.

H. R. 2911, approved May 6, 1937, to pay the French Government for the account of Henry Borday, a citizen of France, as compensation for personal injuries due to an assault at his place of business at Port au Prince, Haiti, by two United States Marines on October 3, 1916, the sum of $1,000.

H. R. 2915, approved May 6, 1937, for payment to the Government of China for the account of Li Po-tien, a citizen of China, as compensation for personal injuries sustained as a result of an assault committed by Anthony R. Tofil, private, United States Marines, at Tientsin, China, on January 2, 1929, the sum of $300.

H. R. 2916, approved May 6, 1937, for payment to the Government of China for the account of Ch'u Shih-hsiang (Cheu S. Ziang), a citizen of China, the sum of $300, and for the account of Ma Jui-hsiang (Mo Zung Poo), a citizen of China, the sum of $300, for personal injuries sustained as a result of an assault committed by William H. Moon, corporal, United States Marines, at Shanghai, China, on May 26, 1931.

H. R. 2922, approved May 6, 1937, for payment to the Government of China for the account of Yao Ah-Ken, $1,500; Chiang Ah-erh (Tsiange Ah Erh), $1,500; the family of Ts'ao Jung-k'uan (Dzao Yong Kwer), $1,500, for losses sustained as the result of a collision between Marine Corps truck No. 1130 and tramcar B. 168 owned by the Shanghai Electric Construction Co., Ltd., Shanghai, on November 29, 1929.

H. R. 2923, approved May 6, 1937, for payment to the Government of Nicaragua for the account of Mercedes V. de Williams, a citizen of Nicaragua, as reimbursement for the deterioration of a boat said to have been owned by Mrs. Williams' husband, Fordyce (Frank) Williams, now deceased, and to have been loaned by him to individual members of the Marine Corps stationed at Prinzapolka, Nicaragua, for recreational purposes, and to have been used by them for such purposes in 1928 and 1929, the sum of $75; for the account of Raimunda Valladares de Calderon, the widow of Justo Calderon, and the children of Justo Calderon, a native of Nicaragua, who was shot to death by a member of the United States naval forces on January 30, 1930, the sum of $2,500; for the account of Demetrio Valle, a citizen of Nicaragua, as full indemnity for losses sustained by him as the result of a bombing operation by a United States Marine Corps airplane near Palasgua, Nicaragua, on or about April 11, 1929, the sum of $600; for the account of Salvador Buitrago Diaz, a Nicaraguan citizen, as full indemnity for damages alleged to have been done to his property by United States Marines on February 6, 1921, the sum of $1,500; for the account of the following-named families and individuals the sum of $11,700 as a total indemnity for losses sustained as a result of the death or personal injury of Manuel Gomez Molino and other during encounters with United States Marines in December 1921 and January 1922: (1) to the family of Manuel Gomez Molino, who was killed December 8, 1921, $1,500; (2) to the family of Obdulio Gomez, who was killed December 8, 1921, $1,500; (3) to the family of Guadalupe Balverve (Valverde), who was killed December 8, 1921, $1,500; (4) to the family of Francisco Ramos, who was killed January 25, 1922, $1,500; (5) to the family of Estanislao Rocha, who was killed January 25, 1922, $1,500; (6) to the family of Julio

Carballo, who was killed January 25, 1922, $1,500; (7) to the family of Manuel Hernandez, who was killed January 25, 1922, $1,500; (8) to Manuel Pineda, who was wounded December 8, 1921, $150; (9) to Alejandro Malespin, who was wounded December 8, 1921, $150; (10) to Ignacio Doña, who was wounded December 8, 1921, $150; (11) to Manuel Aburto, who was wounded January 25, 1922, $150; (12) to Teofilo Farcia (Teofilo Garcia), who was wounded January 25, 1922, $150; (13) to Pedro R. Vega, who was wounded January 25, 1922, $150; (14) to Gilberto Lopez, who was wounded January 25, 1922, $150; (15) to Juan Ortiz, who was wounded January 25, 1922, $150; for the account of Benjamin Gonzalez, of the city of Managua, Nicaragua, as full indemnity for money expended by him because of his being wounded by shooting by Robert C. Lare, a private of the United States Marine Corps, while on police patrol in said city, the sum of $343.55; for the account of Doctors Enrique Klinghoffer and Br. Rappaccioli, of Diriamba, Nicaragua, in full satisfaction of all claims against the United States for professional services, medicines, and so forth, furnished on November 10 and 11, 1929, to the late Major Charles S. McReynolds, United States Marine Corps, who was suffering from numerous stab wounds, the sum of $250; and for the account of Juan Francisco Rivas, a resident of Leon, Nicaragua, the sum of $38.50, of which $32.50 is to reimburse the said Rivas for the cost of medicinal services rendered to said Rivas and his family and made necessary by an attack upon said Rivas, his wife, and child by two privates in the United States Marine Corps Expeditionary Brigade in Nicaragua, on June 5, 1927, and $6 of which is to reimburse the said Juan Francisco Rivas for clothing of his said wife, damaged during said assault; for the account of Horatio de Jesus Castillo, a citizen of Nicaragua, as full indemnity for personal injuries sustained by him as the result of an assault committed upon him by a member of the United States Marine Corps at Matagalpa, Nicaragua, on February 24, 1931, the sum of $1,000; for the account of Emelina Obando, a citizen of Nicaragua, as full compensation for personal injuries sustained as the result of an assault committed upon her by a member of the United States Marine Corps at Matagalpa, Nicaragua, on November 3, 1931, the sum of $100; for the account of the children of Jesus Diaz, a citizen of Nicaragua, as full indemnity for his death as the result of being struck by a sack of post-exchange supplies dropped from a United States Marine Corps airplane at Matagalpa, Nicaragua, on June 21, 1928, the sum of $300; for the account of Domino Portillo, of Matagalpa, as reimbursement of expenses paid by him for the funeral of Jesus Diaz, the sum of $21.50; and for the account of José Luis Mongrio, of Matagalpa, as reimbursement for the cost of repairs to the roof of his house in that city damaged by the dropping of a sack of post-exchange supplies from a United States Marine Corps airplane on June 21, 1928, the sum of $80; in all, $18,508.55.

Selection Boards

S. 1118, to amend section 7 of the Marine Corps personnel act of May 29, 1934, so that "the selection boards appointed to recommend brigadier generals of the line for selection for promotion to major general of the line shall be composed of officers of the permanent rank of major general on the active list of the Marine Corps deemed available for such duty by the Secretary of the Navy and officers of the line of the Navy on the active list with the permanent rank of rear admiral," passed the Senate February 11 and was referred to the House Committee on Naval Affairs on February 15.

On May 25 Mr. Daly introduced bill H. R. 7232 "to repeal the Act of May 29, 1934, providing for the promotion, retirement, and distribution of officers of the Marine Corps, and to provide in lieu thereof a more equitable, honest, and efficient method of promotion, distribution, and retirement of said officers."

On August 2 Mr. Maas introduced bill H. R. 8111, "to provide for the promotion, retirement, and discharge of officers of the line of the Navy, and for other purposes," which, by virtue of the provisions of the Act of May 29, 1934, would also apply to the promotion, retirement and discharge of officers of the Marine Corps. The bill would supercede the present selection laws applying to the line of the Navy and Marine Corps.

This bill, H. R. 8111, would provide for the yearly promotion of officers from the ranks of captain to colonel in the amount of one-seventh of the number of officers for such next higher grade, ten per cent of these officers to be promoted by selection and the remainder to be promoted by seniority from among those officers having seven or more years' service in grade. Provision is made for the creation of a board to recommend officers in the various grades for promotion. From the list of this board's recommendations selections would be made, confined to one-tenth of the number of vacancies to be filled. The remaining vacancies would be filled through promotion by seniority from officers having seven years or more service in grade. The remainder of the officers in such grades, not so promoted, and who have seven or more years of service in grade, would be promoted to the next higher grade as additional numbers, but would be in the lineal active list in any grade to which they might subsequently be promoted. Officers in the grade of captain and major thus passed over would be honorably discharged with two years' pay. Officers in the grade of lieutenant colonel who were passed over would be retired as provided by present law.

All proposed legislation retains the status reached on the day of final adjournment of the first session, August 21, 1937.

MARINE OFFICERS

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RESERVE MATTERS

1. The following is a list of field officers of the Marine Corps Reserve in order of seniority:

COLONELS

Mark Sullivan
William G. Fay

LIEUTENANT COLONELS

James F. Rorke
Joseph J. Staley
William R. Coyle
Victor I. Morrison
Littleton W. T. Waller
Anthony J. D. Biddle
Melvin J. Maas
Clark W. Thompson
James Roosevelt

MAJORS

Charles G. Sinclair
Ralph L. Schiesswohl
Louis F. Timmerman, Jr.
William M. McIllvain
John D. Macklin
Sydney D. Sugar
Carlton Hill
James Wood
Chester L. Fordney
Earl C. Lane
Harvey L. Miller
Charles A. Ketcham
Melvin L. Krulewitch
Alfred A. Watters
Donald T. Winder
Vincent E. Stack
Iven C. Stickney
John J. Flynn
Frederick M. Bock, Jr.
Harry C. Grafton, Jr.
George W. Bettex
William O. McKay
Chauncey G. Parker
John J. Mulligan
Frank A. Mallen
Charles L. Herterich
Louis S. Rosenthall
Charles C. Bradley
Robert E. Stone
William J. Platten
Bernard S. Barron
Stephen A. McClellan
Alford J. Williams, Jr.
Bertrand T. Fay
Francis E. Turin
Carleton Penn
Bernard W. Bierman
Woodbridge S. Van Dyke
Karl S. Day
Alton N. Parker
Edward P. Simmonds
Clarence H. Baldwin
Harold M. Keller
Otto Lessing
Joseph R. Knowlan
Paul Sullivan
Wethered Woodworth
Joseph P. Sproul
James McB. Sellers
Caleb J. Milne, 3rd
Bernard L. Smith
Chauncy V. Burnett

The following appointments have been made in the Marine Corps Reserve:

Captain Henry D. Strunk, FMCR., Bordentown Military Institute, Bordentown, N. J. Rank from 13 May, 1937.

Captain John M. Houston, VMCR., 1620 New House Office Building, Washington, D. C. Rank from 19 May, 1937, No. 1.

Captain Francis H. Case, VMCR., 333 House Office Building, Washington, D. C. Rank from 19 May, 1937, No. 2.

First Lieutenant Foster H. Krug, VMCR., Elko, Nevada. Rank from 20 May, 1937, No. 2.

Second Lieutenant Frederick G. Lippert, FMCR., 367 Meehan St., Germantown, Philadelphia, Pa. Rank from 13 May, 1937, No. 1.

Second Lieutenant Victor J. Simpson, VMCR., Laverne, Oklahoma. Rank from 13 May, 1937, No. 2.

Second Lieutenant Richard C. Nutting, FMCR., 404 Kingston Apartments, Spokane, Washington. Rank from 13 May, 1937, No. 3.

Second Lieutenant Jimmy B. Miles, VMCR., 402 Lamar St., Apt. 3, Houston, Texas. Rank from 13 May, 1937, No. 4.

First Lieutenant Arthur J. Davis, FMCR., 414 Glass Ave., Spokane, Washington. Rank from 13 May, 1937, No. 27.

Second Lieutenant George M. Rice, VMCR., 1219 Floral St., N. W., Washington, D. C. Rank from 3 June, 1937.

The following promotions have been made in the Marine Corps Reserve:

Major Baldwin W. Foote, VMCR. Rank from 22 May, 1936, No. 1½.

Major Chauncy V. Burnett, VMCR. Rank from 4 June, 1937, No. 5.

Captain Donald D. Flora, VMCR. Rank from 23 December, 1936, No. 116.

Captain Valentine P. Hoffman, FMCR. Rank from 27 May, 1937, No. 1.

Captain Carl G. F. Korn, FMCR. Rank from 27 May, 1937, No. 2.

Captain John W. Augustine, FMCR. Rank from 4 June, 1937.

Captain Samuel D. Irwin, VMCR. Rank from 7 June, 1937.

First Lieutenant Alfred H. Marks, FMCR. Rank from 13 May, 1937, No. 1.

First Lieutenant Alton B. Cohen, FMCR. Rank from 13 May, 1937, No. 11.

First Lieutenant Michael J. Davidowitch, FMCR. Rank from 13 May, 1937, No. 13.

First Lieutenant Victor E. Taylor, FMCR. Rank from 20 May, 1937, No. 1.

First Lieutenant John M. Bathum, FMCR. Rank from 27 May, 1937.

First Lieutenant Bert W. Hardy, FMCR. Rank from 3 June, 1937.

The following separations have occurred from the Marine Corps Reserve:

DISCHARGED—

Aviation Cadet Jonathan N. Romine. Effective 27 May, 1937.

Aviation Cadet Joseph J. Kelly. Effective 27 May, 1937.

Aviation Cadet George E. Dorn. Effective 12 June, 1937.

First Lieutenant Ralph A. Huggett, VMCR. Effective 26 May, 1937.

First Lieutenant John P. Collins, VMCR. Effective 28, May, 1937.

First Lieutenant Tracy S. Smith, VMCR. Effective 3 June, 1937.

RESIGNED—

First Lieutenant George R. Littlehales, VMCR. Effective 14 May, 1937.

First Lieutenant Charles E. Warburton, VMCR. Effective 24 May, 1937.

Second Lieutenant William E. Ford, VMCR. Effective 26 May, 1937.

First Lieutenant Joseph A. Martin, FMCR, died 11 April, 1937.

The following appointments have been made in the Marine Corps Reserve:

First Lieutenant Eldrige E. Humphrey, VMCR., 1951 Penfield St., Philadelphia, Pa. Rank from 14 March, 1932, No. 1.

First Lieutenant Chudleigh R. Long, VMCR., 1006 Larchmont Ave., Upper Darby, Pa. Rank from 4 March, 1930, No. 1.

First Lieutenant Lloyd W. Nickerson, VMCR., 7325 S. E. 32nd Ave., Portland, Oregon. Rank from 5 October, 1933, No. 4.

The following promotions have been made in the Marine Corps Reserve:

Captain Charles E. Adams, FMCR., A, 1282 West Brand Blvd., Detroit, Mich. Rank from 17 June, 1937.

First Lieutenant Harold F. Brown, VMCR., A, 1363 Rue Lafayette, Apt. 7-71, Shanghai, China. Rank from 13 May, 1937, No. 21.

First Lieutenant Reed M. Fawell, Jr., VMCR., 790 Myrtle Street, Atlanta, Ga. Rank from 13 May, 1937, No. 3.

First Lieutenant Fenwick N. Reeve, VMCR., 5731 Potomac Ave., N. W., Washington, D. C. Rank from 17 June, 1937.

The following separations have occurred from the Marine Corps Reserve:

DISCHARGED—

Captain Eldrige E. Humphrey, VMCR. Effective 17 June, 1937.

Captain Lloyd W. Nickerson, VMCR. Effective day prior to date of acceptance of appointment as First Lieutenant.

Captain Chudleigh R. Long, VMCR. Effective day prior to date of acceptance of appointment as First Lieutenant.

Aviation Cadet Howard F. Bowker. Effective 30 June, 1937.

Aviation Cadet Gregory Boyington. Effective 30 June, 1937.

Aviation Cadet Fred Raymond Emerson. Effective 30 June, 1937.

Aviation Cadet Freeman Walton Williams. Effective 30 June, 1937.

RESIGNED—

Second Lieutenant Wm. C. Mikell, VMCR. Effective 8 July, 1937.

Aviation Cadet William F. Mershon, USMCR., died July 7, 1937.

The following appointments have been made in the Marine Corps Reserve:

Second Lieutenant Harold A. Stockenberg, VMCR., 430 Magnolia Ave., Long Beach, Calif. Rank from 24 June, 1937.

Second Lieutenant Jesse F. Goins, Jr., VMCR., 846 Adair Ave., N. E., Atlanta Ga. Rank from 22 May, 1937.

Second Lieutenant Robert S. Wade, VMCR., 555 Newark Ave., Elizabeth, N. J. Rank from 15 July, 1937, No. 6.

Second Lieutenant Frank A. Martincheck, VMCR., 285 Ewing St., Meadowsland, Pa. Rank from 15 July, 1937, No. 9.

Second Lieutenant George R. Blue, VMCR., 4645 Music St., New Orleans, La. Rank from 15 July, 1937, No. 14.

Second Lieutenant Stephen R. Cochrane, VMCR., "Birchwood," Broute, Ontario, Canada. Rank from 15 July, 1937, No. 15.

Second Lieutenant Patrick O'Sheel, VMCR., 110 Woodridge Place Leonia, New Jersey. Rank from 15 July, 1937, No. 22.

Second Lieutenant Walter S. Cibulskis, VMCR., 30 E. Liberty St., Waterbury, Conn. Rank from 15 July, 1937, No. 25.

Second Lieutenant William C. Capehart, VMCR., Boykin, South Carolina. Rank from 15 July, 1937, No. 27.

Second Lieutenant Allan Sutter, VMCR., 123 W. Tulpehoken St., Germantown, Pa. Rank from 15 July, 1937, No. 35.

Second Lieutenant Frederick W. Miller, VMCR., 1412 Webster St., New Orleans, La. Rank from 15 July, 1937, No. 39.

Second Lieutenant William R. Gettys, VMCR., Columbia, South Carolina. Rank from 15 July, 1937, No. 45.

Second Lieutenant Albert F. Lucas, VMCR., 864 South St., Pittsfield, Mass. Rank from 15 July, 1937, No. 46.

Second Lieutenant Grant Crane, VMCR., 1788 Coventry Road, Columbus, Ohio. Rank from 15 July, 1937, No. 50.

Second Lieutenant James C. Otis, VMCR., 374 Washington St., Gloucester, Mass. Rank from 15 July, 1937, No. 53.

Second Lieutenant Spencer V. Rice, VMCR., 6 Park Ave., Batavia, New York. Rank from 15 July, 1937, No. 54.

Second Lieutenant James K. Dill, VMCR., Canal Winchester, Ohio. Rank from 15 July, 1937, No. 58.

Second Lieutenant Angus F. Davis, VMCR., Waxhaw, North Carolina. Rank from 15 July, 1937, No. 59.

Second Lieutenant David L. Ealy, VMCR., Moundsville, West Virginia. Rank from 15 July, 1937, No. 66.

Second Lieutenant Melvyn A. Estey, VMCR., 10 Whittier Road, Medford, Mass. Rank from 15 July, 1937, No. 69.

Second Lieutenant Horace P. Houf, VMCR., 165 Lancaster St., Athens, Ohio. Rank from 15 July, 1937, No. 70.

Second Lieutenant Arnold D. Swartz, VMCR., 363 Belmont St., Brockton, Mass. Rank from 15 July, 1937, No. 77.

Second Lieutenant John W. Foley, Jr., VMCR., 242 Sunset Ave., Englewood, N. J. Rank from 15 July, 1937, No. 78.

Second Lieutenant George E. Ridgeway, VMCR., 320 E. Main St., Jackson, Ohio. Rank from 15 July, 1937, No. 83.

Second Lieutenant Glen C. Tyler, VMCR., 1635 Spruce St., Boulder, Colo. Rank from 15 July, 1937, No. 68.

Second Lieutenant Don G. Magruder, VMCR., 123 S. New Hampshire Ave., Los Angeles, Calif. Rank from 15 July, 1937, No. 40.

Second Lieutenant Kenneth H. York, VMCR., 705 E. 6th St., Pueblo, Colo. Rank from 15 July, 1937, No. 32.

Second Lieutenant Cornelius C. Smith, Jr., VMCR., Riverside, Calif. Rank from 15 July, 1937, No. 16.

Second Lieutenant Edward W. Wells, VMCR., 2746 Kingsford Drive, Toledo, Ohio. Rank from 15 July, 1937, No. 12.

Second Lieutenant Edward M. Staab, Jr., VMCR., 1909 Walnut St., Toledo, Ohio. Rank from 15 July, 1937, No. 29.

Second Lieutenant Robert J. Putnam, VMCR., 1913 E. 17th Ave., Denver, Colo. Rank from 15 July, 1937, No. 52.

Second Lieutenant Ralph H. Coyte, VMCR., 983 Pennsylvania St., Boulder, Colo. Rank from 15 July, 1937, No. 48.

Second Lieutenant Shirl L. Sadler, VMCR., 490 E. Garvey Blvd., El Monte, Calif. Rank from 15 July, 1937, No. 84.

Second Lieutenant Menard Doswell, III., VMCR., 7933 Zinple St., New Orleans, La. Rank from 15 July, 1937, No. 31.

Aviation Cadet George A. Graves, 6151 Winthrop Ave., Chicago, Ill. Rank from 1 July, 1937.

Aviation Cadet John F. Carey, Hayfield, Minnesota. Rank from 21 July, 1937, No. 1.

Aviation Cadet Henry A. Ellis, Jr., 2717 Portola Ave., Sacramento, Calif. Rank from 21 July, 1937, No. 2.

Aviation Cadet Robert A. Harvey, Route 2, Box 65, Escondido, Calif. Rank from 21 July, 1937, No. 3.

Aviation Cadet Robert L. Knight, 903 9th St., Brookings, S. D. Rank from 21 July, 1937, No. 4.

Aviation Cadet Joseph E. Sager, Columbia, Tenn. Rank from 21 July, 1937, No. 6.

Aviation Cadet Floyd E. Beard, 1602 S. Broadway, Pittsburg, Kansas. Rank from 28 July, 1937, No. 1.

Aviation Cadet Howard B. Henderson, 416 30th Ave., North, Seattle, Wash. Rank from 28 July, 1937, No. 2.

Aviation Cadet James C. Lindsay, 105 College Place, Syracuse, N. Y. Rank from 28 July, 1937, No. 3.

Aviation Cadet Norman W. Noble, Hays, Kansas. Rank from 28 July, 1937, No. 4.

Aviation Cadet Vernon F. Victor, 113 North Fellows Ave., Ottumwa, Iowa. Rank from 28 July, 1937, No. 5.

The following promotions have been made in the Marine Corps Reserve:

First Lieutenant John B. Baker, VMCR., 25 Virginia Ave., Petersburg, W. Va. Rank from 13 May, 1937, No. 15.

First Lieutenant Charles M. Nees, FMCR., 1519 W. 68th Ave., Philadelphia, Pa. Rank from 7 March, 1937, No. 1.

The following separations have occurred from the Marine Corps Reserve:

DISCHARGED—

Aviation Cadet Robert P. Regan, effective 22 July, 1937.

First Lieutenant William B. Barber, FMCR., effective 30 July, 1937.

RESIGNED—

Second Lieutenant Wm. S. Vasconcellos, VMCR., effective 6 July, 1937.

Second Lieutenant John J. McDonald, VMCR., effective 27 July, 1937.

Second Lieutenant Lyman R. McAboy, effective 25 July, 1937.

First Lieutenant Walter Amory, VMCR., effective 27 July, 1937.

The following appointments have been made in the Marine Corps Reserve:

Second Lieutenant Charles L. Cogswell, FMCR., 4815 14th St., N. W., Washington, D. C. Rank from 15 July, 1937, No. 5.

Second Lieutenant Robert F. Estes, VMCR., 316 Louisiana Ave., McComb, Miss. Rank from 4 August, 1937, No. 1.

Second Lieutenant Edwin O. Billings, VMCR., c/o Transcontinental & Western Air, Inc., Municipal Airport, Kansas City, Mo. Rank from 4 August, 1937, No. 2.

Second Lieutenant Elmer W. Myers, VMCR., 376 Cottage St., Rochester, N. Y. Rank from 15 July, 1937, No. 10.

Second Lieutenant John E. Shinn, VMCR., 161-15 28th Ave., Flushing, N. Y. Rank from 15 July, 1937, No. 33.

Second Lieutenant William L. Hawkins, VMCR., 271 Waverley Ave., Watertown, Mass. Rank from 15 July, 1937, No. 63.

Second Lieutenant Edward O. Stephany, VMCR., 92 Tyler St., Rochester, N. Y. Rank from 15 July, 1937, No. 34.

The following promotions have been made in the Marine Corps Reserve:

Captain Jacob G. Goldberg, FMCR., P. O. Box 907, Texas City, Tex. Rank from 22 July, 1937.

Captain Theodore O. Brewster, FMCR. Rank from 30 June, 1937, No. 1.

Captain Lyle H. Meyer, FMCR. Rank from 30 June, 1937, No. 9.

Captain Daniel W. Torrey, Jr., FMCR. Rank from 30 June, 1937, No. 10.

Captain Joseph Lyman, FMCR. Rank from 30 June, 1937, No. 11.

Captain Delbert W. Heath, FMCR. Rank from 30 June, 1937, No. 12.

Captain Robert H. Kerr, FMCR. Rank from 30 June, 1937, No. 13.

Captain Robert M. Haynes, FMCR. Rank from 1 July, 1937, No. 2.

Captain Roswell B. Burchard, Jr., FMCR. Rank from 1 July, 1937, No. 5.

Captain Benjamin B. Southworth, FMCR. Rank from 1 July, 1937, No. 9.

Captain Thomas J. Noon, FMCR. Rank from 1 July, 1937, No. 10.

Captain Warren J. Sweetser, FMCR. Rank from 1 July, 1937, No. 12.

Captain Harry J. Beyer, Jr., FMCR. Rank from 1 July, 1937, No. 16.

Captain Lewis H. Delano, Jr., FMCR. Rank from 1 July, 1937, No. 17.

Captain Leonard W. Ashwell, FMCR. Rank from 1 July, 1937, No. 8.

The following separations have occurred from the Marine Corps Reserve:

RESIGNED—

Second Lieutenant Horace P. Houf, VMCR., effective 16 August, 1937.

Second Lieutenant Menard Doswell, III, VMCR., effective 16 August, 1937.

The following appointments have been made in the Marine Corps Reserves:

Second Lieutenant Edward G. Losch, FMCR., 1675 Boulevard East, North Bergen, N. J. Rank from 10 August, 1937, No. 1.

Second Lieutenant Edward A. Clark, VMCR., Route 1, Sequim, Wash. Rank from 19 August, 1937, No. 2.

Second Lieutenant Clifford G. Siemens, VMCR., 1358 Grand Ave., Toledo, Ohio. Rank from 19 August, 1937, No. 3.

Second Lieutenant Clarke E. Stephens, VMCR., 232 S. June St., Los Angeles, Calif. Rank from 15 July, 1937, No. 24.

Aviation Cadet Jonathan W. Dyer, Stewartsville, Missouri. Rank from 18 August, 1937, No. 1.

(Continued on page 60)

FORMER MARINES
CONGRESSMEN HOLDING RESERVE COMMISSIONS

Left to Right: Congressman L. E. Imhoff (Ohio); Congressman J. M. Houston (Kansas); Congressman F. H. Case (South Dakota); Congressman M. J. Maas (Minnesota); Congressman R. L. Mouton (Louisiana).

OUR NEUTRALITY STAND

By Colonel J. C. Fegan, U.S.M.C.

■ Our latest Neutrality Act has been slapped around by Editorial writers, Statesmen and Commentators until it has reached the dilemma state. After all, any interpretation of the language of any Act is the personal belief of the individual, but several individuals have laid a construction upon the act's meaning which would rather indicate that their viewpoint is not wholesome or falling short of a clear thinking mind.

One of the best qualified authorities to interpret the act is the Chairman of the Senate Foreign Relations Committee, who recently spoke as follows:

The President and the Secretary of State are impatiently and unreasonably urged to state what action will be taken by the President, under the Neutrality Act, toward China and Japan.

In so serious a matter, whilst our Government is making every effort to bring about a cessation of the unfortunate situation and to protect the lives of our citizens in China through diplomatic conversations, the impropriety and the danger to the best interest of our country of public discussions by the President and the Secretary of State are obvious.

The Neutrality Act in its purpose is frequently misconstrued. It is not a treaty. It is not enacted for the benefit of any other country. It is not for the purpose of punishing any country. It is enacted solely for the purpose of protection of our own peace and the lives of our citizens.

The act grants to the President the exclusive jurisdiction, in his sound judgment, to determine when a state of war exists as between two or more countries. This discretion was granted to him because governments today rarely declare war. It is very difficult to determine that a state of war exists. Every armed conflict between the armed forces of governments does not necessarily constitute a state of war. The short conflict between the German Government and the Spanish Government, which was not continued, did not constitute a state of war, as a state of war should be determined under the discretion granted the President in the Neutrality Act.

It must also be remembered tha the authority delegated to the President in the Neutrality Act is only one of many powers granted him under the Constitution and under other acts of Congress imposing upon him the responsibility for the protection of our peace and the lives of our citizens.

He is now intensely endeavoring to protect the lives of our citizens in the zone of conflict in China. So far, he has succeeded. So far, he has maintained the friendship, confidence, and cooperation of both conflicting forces. The President is using every power that he possesses to bring about a cessation of such hostilities. Undoubtedly the same efforts are being made by other great governments, and, if not in cooperation, at least along harmonious lines.

These peaceful and humane efforts should not be endangered or disrupted by any hasty action upon the part of any government. Such an act might destroy all efforts now being made and endanger the lives of our citizens in China who are in a critical situation.

If today the President should declare a state of war to exist between China and Japan, it would be his duty to place in effect as to both such governments all of the provisions of the Neutrality Act. If then an armistice is declared tomorrow or any subsequent date shortly thereafter, his decision that a state of war exists would be erroneous under the interpretation intended in our Neutrality Act. Certainly the second the Neutrality Act is put in force and effect the influence of the President in bringing about a cessation of hostilities in China would be greatly depreciated and his great power for the protection of our citizens impaired. If either government declares war, his discretion ends. Such a declaration, however, must be made by a government.

If such conflict continues to spread and apparently beyond the hope of peaceful adjustment, then the President will be called upon to act.

NEUTRALITY REFLECTIONS

In our concern over affairs in Spain and China let us look back at the most momentous period in American history, when participation in the affairs of Europe or an attempt to decide upon the merits of their wars might have been fatal.

It must be remembered that France made her great, if belated, effort to reestablish her primacy in Europe by her use of the French Revolution and the American alliance. Even in the consummation of the pact of amity, France pursued a watchful waiting policy and only yielded at the surrender of General Burgoyne's army. Essentially the policy was hatred of England, not so much a love of America, but the defeat resolved all doubts in form of the American Colonies.

Out of the accord came the treaty of amity and commerce which embodied most-favored-nation trading privileges and the maritime principles of the plan of 1776, as well as the recognition of the independence of the United States.

The second pact was a "conditional and defensive alliance" with a provision that should a war materialize between England and France, the United States would fight shoulder to shoulder with her ally, and neither would yield without the consent of the other.

Practically the money which France spent to help us was the death blow to the ancient regime and paved the way for the French Revolution. Practically, also, France did not wish to have us pay our debts, as she might lose her diplomatic hold over us, but when we did astonish her later with payment, she found the gesture a helpful aid in the throes of the revolution.

The French Revolution and all its awful consequences in Europe, so well told by Thomas Carlyle and Edmund Burke, came to America as a shield and protection. It

(*Continued on page* 34)

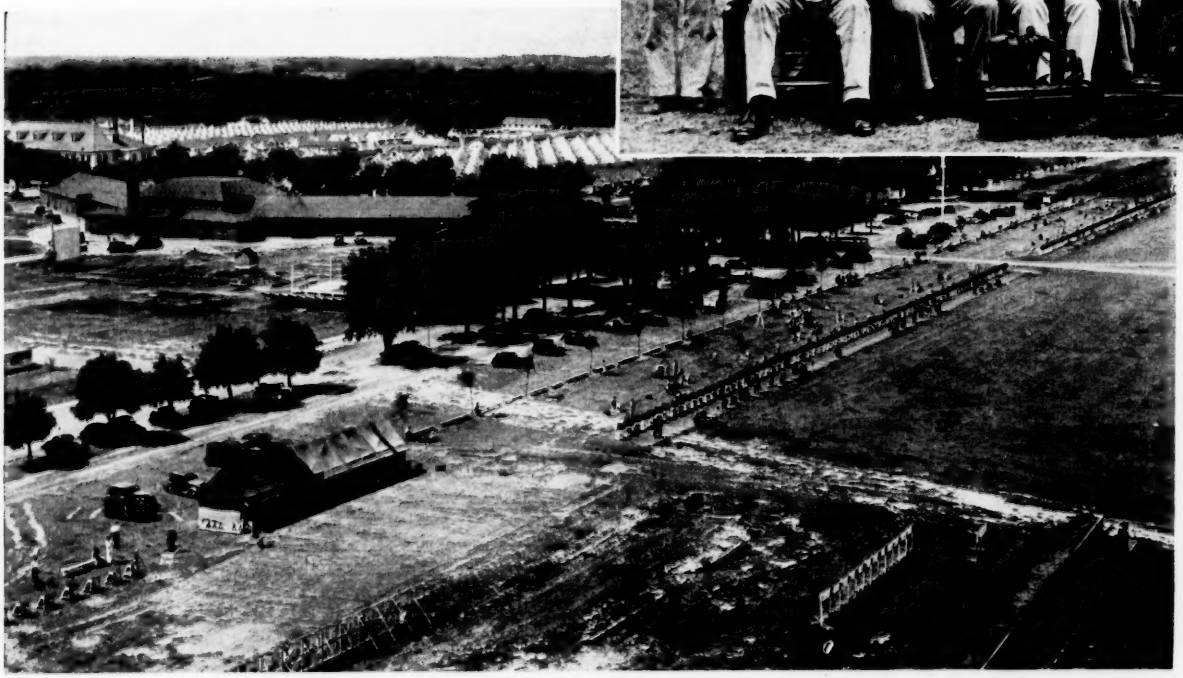
CAMP PER

Maj. Gen. Thomas H. Holcomb sitting behind a telescope on the line during the course of the National Rifle Matches.

Center—The entire group of Marine rifle and pistol shooters which
with six of the 9 trophies won. The National Team Trophy, the Pers
left to right are: The Crowell Trophy, The Wright Trophy, The Leec
Men's Team Tr

Lower Left—The western end of Camp Perry from the air, showing se
the tented homes of the competing rifl

Lower Right—The Marine Corps Reserve Rifle Team winners of the
Lieuts. McIllhenny, Adams, Swanson, Capt. Hankins, Lieut. Dzen. St
Cpl. Brewer.



PERRY, 1937

ooters which comprised the Marine teams at Camp Perry, Ohio, for 1937, phy, the Pershing Trophy and the Farr Trophy are missing. The trophies hy, The Leech Cup, The Navy Cup, The Cavalry Cup and The Enlisted en's Team Trophy.

ir, showing some of the firing lines, the new Commercial building, and competing rifle teams in the background.

nners of the Roumanian rifle team match at Camp Perry, Ohio. Sitting, ut. Dze. Standing, Cpl. Edwards, Sgt. Willoughby, Gy-Sgt. Seitzsinger, Cpl. Brewer.

Lt. James G. Frazer holding the massive bronze trophy of Daniel Boone which he won in the National Individual Rifle Match at Camp Perry, Ohio.

(*Continued from page* 31)

overturned the entire theory of the balance of power in Europe, prostrated the easy-going machinery of absolutism, and caused such consternation that few continental nations had much time to think of the New World. Under its protecting blanket America made phenomenal progress. In the breathing spell we developed a real foreign policy that carried us through the infant days and even today is a salutary reminder of what may happen if emotions get the better of our people and they wish to decide on the merits of other people's quarrels.

Great Britain and France were at war on February 1, 1793. On this side of the ocean an overwhelming sentiment was for France. It is easy to understand this, for France had enabled us to win the War of Independence, and she had just won her own enfranchisement from the crushing despotism of an outworn monarchial system. In addition, we were still united to France as an ally bound to defend the French West Indies in time of war.

In the midst of the all-powerful popular emotional outbursts of sympathy for France, President Washington, backed by Alexander Hamilton and Thomas Jefferson, saw through the chaos and confusion of the moment and decided upon real neutrality. In an epochal proclamation, the President enjoined neutrality upon every citizen. It was virgin ground upon which the new nation was walking. This type of sincere neutrality was a new concept in the world picture. In the midst of the furor the strong, clear voice of Jefferson cautioned and convinced the President that we should stand by the French treaties and the Minister of France should be received if he came. Jefferson was gambling that France would not insist upon the terms of the alliance. So it proved, as she hoped, a benevolent neutrality would benefit her. Then began that series of events that followed the arrival of Citizen Genet, but complete frustration balked his purposes when President Washington put teeth into the neutrality laws. It was an epochal move.

The basis of that move was pure, unadulterated concern for America—first and foremost. No sentimentality entered into the picture. We must remember that nine-tenths of our trade was with Great Britain, and one-half of that was in British bottoms. We had no navy, and all the high principles of maritime policy that we had voiced were ineffective for the want of sea-surface ability to carry them out. However much we hoped to make free ships free goods through the French treaty, we had no chance to make England follow our wishes. As a matter of fact England had strong backing from all the principal powers of Europe with the exception of the Scandinavian states, and all had a common motive—hatred of France.

We got the Jay treaty through because of the preoccupations of the British and their respect for our profitable American trade. Expediency and the weakness of our armed forces dictated a prudence that may now seem akin to surrender, but in the passage of time we realize that we were compelled to make these concessions for peace and a chance to grow unmolested by foreign entanglements and intrigue. That treaty saw as a result the efforts of France to influence the American electorate, to cast aside President Washington in a campaign of 1796, a heinous attempt of a foreign government to interfere with the domestic problems of another nation.

On the basis of those experiences Washington formulated his magnificent advice to his countrymen.

From that time until the so-called "era of good feeling" America moved along to such heights that Louis Phillipe, when he became King, told Lafayette that "what he had seen in the United States had convinced him that no government can be so good as a republic." He had surveyed the period for which the pregnant seed was sown in the neutrality decision of the Washington administration and the philosophy of the Farewell Address. What a period that was is best expressed in this quotation from a distinguished English historian:

There was a time in the Presidency of Monroe, about 55 years ago, which men still speak of as "the era of good feeling" when most of the incongruities that had come down from the Stuarts had been reformed and the motives of later division were yet inactive. The causes of Old World trouble—popular ignorance, pauperism, the glaring contrast between rich and poor, religious strife, public debts, standing armies, and war—were almost unknown.

Knowing these things, what answer can there be to the thunderous ponderosity implied in the Washington question to all Americans in all times:

Why quit our own to stand upon foreign ground? Why by intervention interweaving our destiny with that of any part of Europe, entangle our peace and prosperity in the toils of European ambition, rivalship, interest, humor, or caprice?

Can ambitions founded on popular ignorance, stark poverty, religious intolerance, overwhelming discrepancies between rich and poor, huge military machines, have anything in common with our system of representative government? Can the awful lessons of European diplomatic deceit, assassination, and machiavellian blackguardism offer us a community of interest? Was not Baron DeNolke, Swedish Ambassador to England in 1784 hitting the nail on the head when he told Johns Adams?—

I take it for granted that you will have the sense enough to see us in Europe cut each other's throat with a philosophical tranquillity.

Adams supplemented this with a letter in 1809 to this effect:

Our form of government, inestimable as it is, exposes us more than any other to the insiduous intrigues and pestilent influence of foreign nations. Nothing but our inflexible neutrality can preserve us. The public negotiations and secret intrigues of the English and French have been employed for centuries in every court and country of Europe. Look back to the history of Spain, Holland, Germany, Russia, Sweden, Denmark, Prussia, Italy, and Turkey for the last hundred years. How many revolutions have been caused? How many emperors and kings have fallen victims to the alternate triumphs of parties excited by Englishmen or Frenchmen? And can we expect to escape the vigilant attention of politicians so experienced, so keen-sighted, and so rich? If we convince them that our attachment to neutrality is unchangeable, they will let us alone; but as long as a hope remains in either power, of seducing us to engage in war on his side and against his enemy, we shall be torn and convulsed by their maneuvers.

Today more than ever we ought to heed these admoni-

tions, for it is easy to get caught in the terrific onslaught of sentiment that can be manufactured for the belligerents in every war. Why in the outbreak of hostilities between A and B the purposes of B may outshine the noblest aspirations of man, yet soon C and D, autocratic backward nations, may join B, and then C may have as allies a set of the most progressive partners. Then where are we? The answer is simply to take to heart the definition of Prof. Edward Borchard, of Yale University Law School, which reads as follows:

Neutrality is an old institution, which finds its source in candor, in the obligations to hold the scales even, to remain a friend of both belligerents, to lend support to neither, to avoid passing judgment on the merits of their war. It assures both belligerents that they are dealing with a friend, not a disguised enemy. The belligerents must know who is in the war and who is not. In return for obligations assumed by a neutral, the belligerents undertake to respect his rights as a neutral, including the right to remain out of other people's wars.

This is a cogent reminder of what John Quincy Adams said, that:

Neutrality avoids all consideration of the merits of the contest.

Add to this the will to be neutral—a will which is sustained, above and beyond all temptations, and you have real neutrality. It preserved infant America—it should protect that same robust America now.

If further evidence of Presidential support is wanted for Washington's doctrine, we can cite Jackson, Van Buren, Tyler, Fillmore, Pierce, Lincoln, Johnson, Cleveland, Harding. All are on record with the same thought that Washington fathered.

Abraham Lincoln, second annual message, December 1, 1862:

The Civil War, which has so radically changed for the moment the occupations and habits of the American people, has necessarily disturbed the social condition and affected very deeply the prosperity of the nations with which we have carried on a commerce that has been steadily increasing throughout a period of half a century. It has at the same time excited political ambitions and apprehensions which have produced a profound agitation throughout the civilized world. In this unusual agitation we have forborne from taking part in any controversy between foreign states and between parties or factions in such states. We have attempted no propagandism and acknowledged no revolution. But we have left to every nation the exclusive conduct and management of its own affairs.

Andrew Johnson, fourth annual message, Washington, December 9, 1868:

Conforming my administration to these principles, I have on no occasion lent support or toleration to unlawful expeditions set on foot upon the plea of Republican propagandism or of national extension or aggrandizement. The necessity, however, of repressing such unlawful movements clearly indicates the duty which rests upon us of adapting our legislation action to the new circumstances of a decline of European monarchial power and influence and the increase of American republican ideas, interest, and sympathies.

Grover Cleveland, first annual message, Dec. 18, 1885:

Maintaining as I do the tenets of a line of precedents from Washington's day, which proscribe entangling alliances with foreign states, I do not favor a policy of acquisition of new and distant territory or the incorporation of remote interests with our own.

In the sixth annual message of President James Monroe, December 3, 1822, we find these words:

Sustaining our neutral position and allowing to each party while the war continues equal rights, it is incumbent on the United States to claim of each with vigor the faithful observance of our rights according to the well-known law of nations.

President Andrew Jackson repeated the thought in his third annual message on December 6, 1831:

The pacific and wise policy of our Government kept us in a state of neutrality during the wars that have at different periods since our political existence been carried on by other powers.

President Martin Van Buren in his inaugural address March 4, 1837:

We decline alliances as averse to our peace.

And in his first annual message December 5, 1837, he said:

We have faithfully sustained the foreign policy with which the United States, under the guidance of their first President, took their stand in the family of nations.

President John Tyler, second annual message, December 6, 1842:

Our great desire should be to enter only into rivalry which looks to the general good in the cultivation of the sciences, the enlargement for the exercise of mechanical arts, and the spread of commerce—the great civilizer—to every land and sea. Carefully abstaining from interference in all questions exclusively referring themselves to the political interests of Europe, we may be permitted to hope an equal exemption from the interference of European governments in what relates to the states of the American continent.

While President James K. Polk in his inaugural, March 1845, said:

All alliances having a tendency to jeopardize the welfare and honor of our country or sacrifice any one of the national interests will be studiously avoided.

First annual message, December 2, 1850, of President Millard Fillmore:

We make no wars to prevent, to promote, or to prevent succession to thrones, to maintain any theory of balance of power, or to suppress the actual government which any country chooses to establish for itself * * * to maintain a strict neutrality in foreign wars.

On March 4, 1853, the inaugural address of Franklin Pierce contains these words:

Of the complicated European systems of national policy we have heretofore been independent from their wars, their tumults, and anxieties; we have been, happily, almost entirely exempt.

Again in the inaugural of James Buchanan of March 4, 1857, we listen to the familiar words:

To avoid entangling alliances has been a maxim of our policy since the days of Washington, and its wisdom no one disputes.

ED.

MODERN PISTOL TRAINING FOR THE MARINE CORPS

By Captain Samuel S. Yeaton, U.S.M.C.

The Marine Corps needs a pistol course carefully designed to meet its own peculiar requirements. Our present course was designed specifically for the infantry, in which the pistol is strictly a secondary weapon. One of the major problems of the Marine Corps is guard duty, and the primary weapon of the sentry is his pistol. For this reason, if for no other, we should realize that the pistol is a more important weapon to the Corps than to any other branch of the service.

Moreover, there is a reasonable doubt that our present method of pistol training is the *best* infantry training or even that it accomplishes the end toward which it was designed. It is based upon the premise that accurate target shooting and high-speed combat shooting require the same sort of training. The assumption may easily be attacked logically and theoretically, but the final test of all military questions lies in the field. It is not easy to prove a case against the course by means of examples, but it *can* be proved that excellent combat efficiency can be taught with the expenditure of less time and money than we use on our present training, the Army "D" course. If this is true, it deserves our fullest consideration, not only because a study of such a method might lead us to better trained men or less expensive training, but also because modern warfare seems to be increasingly a struggle against time, so that speed and efficiency of training may conceivably be a deciding factor.

The method of instruction to which we refer is that used by the Shanghai Municipal Police. It was designed by Commissioner Fairbairn for the purpose of teaching practical shooting to police officers of many nationalities, with an average of intelligence well below that of the average Marine. His splendid results are a matter of record, and a challenge to all methods of instruction purporting to teach combat shooting. He has accomplished this in spite of a time and ammunition allowance that most instructors would consider niggardly.

The secret of the course is simple . . . . the men are taught to do exactly the sort of shooting necessary in gun-fighting, under conditions physically and psychologically similar to those encountered in the course of duty, so far as is possible. This principle is in entire agreement with the most modern theories of education, which hold that training should be conducted under conditions as nearly as possible identical with those under which it will be applied. This is a rule which we violate most flagrantly in our regular pistol instruction, for we are training Marines to be target and competition marksmen, not practical combat shots. The distinction may be challenged, but experience seems to justify it thoroughly. It is certainly *possible* for a good target shot to be a good combat shot, but *it does not necessarily follow*. This is the fallacy upon which most infantry courses are constructed. Commissioner Fairbairn has avoided it by teaching his men exactly, rather than approximately, what he wished them to be able to do. He wished them to be able to hit men at combat ranges. All targets on the Shanghai range, therefore, are man-sized silhouettes and the ranges are not more than ten or fifteen yards. Shots are scored as hits or misses, only, and the technique of firing is as simple and practical as it could well be made. As an example, let us look at a man shooting his qualification over a Shanghai course.

The officer puts three shells into his .45 automatic clip, taking a firing point about ten yards from a waist-high wall, the butts. A man-sized silhouette is run up as he loads the weapon and takes a "ready" position. We note that even this position is not conventional. The officer faces the target squarely, his shoulders parallel to the wall, and his pistol is pointed at the ground about five feet in front of the shooter. His arm is straight, and his wrist is bent just enough to line the sights up with his eye. Now he gets the signal to fire his first string. He is staring directly at the middle of the target, his arm swings up stiffly, pauses a fraction of a second at the line of sight, and he fires. His arm drops back to the "ready" position, swings up again, pauses, and the second shot is off. After the third shot he removes the clip and reloads with four cartridges for the second string. His first target has three hits neatly spotted in the close vicinity of the solar plexus.

Now he is ready for his second string. All targets are pulled down. The shooter takes his peculiar "ready" position. There is a pause, during which we observe that the shooter is extremely tense. His knees are slightly bent, and he is leaning forward slightly in expectation. His knuckles are white from the tenseness of his grip. This seems all wrong to us, trained in the target-shooter's "gentle but firm grasp," but we see that the instructor watches him approvingly. Suddenly a silhouette shoots up, pauses for nearly a second, and drops again. We hear two reports, the second one a trifle late, after the target had started down. The shooter is again in his "ready" position. The target pops up again, the officer's arm snaps up stiffly, and he fires twice rapidly, before the target has time to move. Good hits, both of them. We notice that there is still a tiny pause at the top of the arm swing before the first shot goes off, but the second follows the first as rapidly as the officer can pull trigger. This is the method of "burst" firing practiced by the Shanghai police, and we observe that

ordinarily both shots are hits, within a few inches of each other. The instructor tells us that the men have little difficulty in learning to shoot in this fashion. They line up the gun, get two shots away as quickly as they can, line it up again and shoot another pair. Experience has indicated that this is the best method of getting the maximum of hits in a minimum of time.

The officer is ready for his third string. No targets are visible, though the shooter is obviously expecting one at any moment, for his knees are flexed even more than before. There is a sudden clatter and the silhouette of a running man slides from behind the banking at one end of the butts, moving across the range behind the wall at a fast walk, to disappear behind the bank on the opposite side. We hear the double report of the Colt, and see a hole appear in the target, just before it goes out of sight. There is a short pause and a similar target slides across in front of the wall going in the opposite direction. Watching the shooter we see that his arm snaps up as before, and that he turns his whole body to follow the target as it moves, as a trapshooter follows his bird. Two hits.

In preparing for the fourth string, the officer merely loads his clip and places it in the gun, leaving the chamber empty. In taking his "ready" position we observe a change. He now holds the pistol on its side, slide to the left, close to his body and about level with his belt. His left hand grips the slide tightly. As we hear the clatter of the running target we see him thrust the pistol forward and up to the firing position without moving his left hand perceptibly. This movement yanks the slide back, and one shot gets away almost as quickly as the pair when the gun was ready loaded because by the time the gun gets to the firing position it *is* loaded. The officer puts another cartridge in the clip and takes another shot at the returning target in a similar manner. The instructor tells us that this method of firing is practiced because the officers are taught to carry their guns with a full clip and an empty chamber. The safety is never used, indeed the police armorers pin down the safeties of all police guns so that they *cannot* be used. Before this was done many guns were turned in for malfunctioning during shooting affrays merely because the safety was on when the man tried to fire.

Fifth string. The officer has gone back to a firing point about fifteen yards from the butts and a silhouette target has been run up, on which we see a series of rectangles like scoring rings. At the word the man starts firing . . . . four shots, moderately rapidly . . . . we understand that he has fifteen seconds for them. The instructor also tells us that this is one of the few targets on which all hits do not have equal value. On all previous targets any hit was worth five points, but on this one the shooter must put his shots into a four by eight rectangle to receive full credit. Other hits are discounted according to which rectangle they fall in, although any hit counts two points.

The final string is from the original firing point. The shooter is again in his usual tense position, waiting for a target to appear. The pause becomes very long, and still no target. Even we feel the tension of the wait, but the officer does not relax his alertness. Suddenly a runner dashes across right to left, and he throws a shot at it. Just as it disappears a bobber pops up at the extreme right and the shooter, swinging back for it, spins too far and we see a puff of dirt from the banking. The instructor laughs, and the man takes a breath to curse when another bobber goes up right beside the place where the first one went down. The gun snaps up and the officer gives vent to his feelings by putting his last shot squarely in the breast of the figure. Straightening up, he drops the .45 back into its holster and goes off the range, obviously feeling perfectly able to hold his own in a gun fight, and, it seems to us, with some reason. He had a score of eighty, ten more than was necessary to retain his "expert" classification, but to our eyes, a much more important fact is that he put at least *one* hole in every target he fired at, excepting only the second surprise target in the final string. Even the bobbing and running targets that he missed carried away at least one .45 hole, and experience has seemed to indicate that one such slug will ordinarily discourage or remove the recipient from active fighting.

Witnessing such an exhibition is very likely to convince the average onlooker that Commissioner Fairbairn "has got something there," but when further questions reveal that only a few of the men shoot below sixty on this course, that much of the training is done with .22 caliber arms, and that most of the men do little or no practicing between classifications, which they shoot only twice a year . . . . well, the most skeptical might become interested. We are not familiar with any type of shooting instruction which gives as much return for as little time and ammunition. Part of the secret lies in the fact that Fairbairn does not attempt to teach his men any sort of trigger squeeze. Pistol instructors will all agree that this part of the teaching is the most difficult for the pupils to learn and the easiest for them to forget. It is quite certain that only the most intensive sort of training could ever impress this habit firmly enough that the man would squeeze the trigger in actual combat when an opponent was shooting at him. And for battle targets at battle ranges it is not necessary, as Shanghai has conclusively proven, so that unless we wish to make competition shots of all our men it is a very costly item to retain in our pistol instruction.

Our suggestion is that the Marine Corps might well take a tip from Shanghai and adopt a fundamental course modelled upon the methods of Commissioner Fairbairn. Let us assume, for the sake of discussion that you agree with us theoretically . . . that you believe, as we do, that such a course would greatly improve our combat efficiency with a weapon that every Marine needs to be able to use, that it would give each man thorough confidence in his own ability, and that it would save much expenditure of time and money. There still remains the problem of whether or not it is practical to make such a major change in our training. We believe that it is not only practical, but comparatively easy.

Less equipment is required than is necessary for the present course. Simple bobbing and running targets can be improvised easily with small expense or labor. Three bobbers and two runners would be sufficient for such a course as we shall outline, and several such ranges could be constructed for the price of a single set of standard pistol butts. On a range already equipped with ordinary butts a few silhouettes fastened to poles would be entirely satisfactory. These may be used as bobbers by pushing them up and down, or as runners, by having the target handlers walk along with them. More elaborate arrangements could be made if possible, but this method is entirely adequate.

Although we have, at present, only a few men capable of instructing for this type of shooting, more can be rapidly trained, for it is more easily learned than conventional target shooting. This would be particularly easy for those on the Shanghai station, where excellent examples may be seen at the police range. Commissioner Fairbairn has always been more than kind and unbelievably patient with us.

In designing a combat course to replace our present course there seem to us to be three primary principles to follow. The first is that all shooting is snapshooting at silhouette targets. The exact technique may be a subject for argument . . . we suggest Commissioner Fairbairn's methods, not because they are necessarily perfect, but because they have been tested over a period of years, and found adequate under conditions much less favorable than those to be found in the Corps. It is therefore a sound foundation upon which to construct a technique which may be better suited to our needs. Our second principle is that all ranges should be relatively short. This is in accordance with most practical experience, which indicates that actual combat ranges for the pistol seldom exceed twenty feet. Major Victor Bleasdale, in his lectures on "Small Wars" gives five yards as the maximum effective distance for combat conditions. It is therefore not illogical to train our men at a range of thirty feet. A much more important reason for these short ranges and large targets is that the men learn to hit them easily. In this way they learn to have confidence both in their pistols and themselves. Before they leave the course they know that they can hit men consistently at those ranges. How many sentries today have such a feeling? How many have the ability? Not many, probably. Our present training is not conducive to either. The third principle upon which we insist is that of the unknown targets. In combat shooting one seldom knows just where his target is going to appear, and yet he must see it and hit it before it can do the same for him. The Shanghai course which we described contained only one string of surprise targets, by which they mean that *any* target may suddenly appear. Although such training is extremely valuable it is difficult to use it extensively in the planning of a course, for a standard course must be equally fair to every shooter. For this reason we suggest the use of "unknown" targets, when the shooter knows that his target is to be a bobber, but doesn't know which one; or a runner, but not *which* runner. This will give almost the same training as the surprise targets, over a standardized course, equally difficult for each man. The exact course that we would suggest follows:

1.	Slow (3 sec.) *known* bobbers 3 targets	3 rounds
2.	Slow *unknown* bobbers. 3 targets	3 rounds
3.	Slow unknown bobbers. *Bursts of two.* 3 targets	6 rounds
4.	Slow (quick time) unknown *runners* 2 targets	2 rounds
5.	*Fast* (1 sec.) unknown bobbers. Bursts. 3 targets	6 rounds
6	*Fast* (double time) unknown *runners* Bursts. 2 targets	4 rounds
7.	*Surprise targets* Bursts. 3 targets	6 rounds
		30 total

Hits to count five points.
Misses to count zero.
Possible score—150.

This particular sequence is designed to help the man learn more easily, and to help the instructor in teaching him, as well. His progress will be indicated almost automatically, because the strings are graduated in difficulty, each one requiring the man to learn one new thing in addition to what he has already mastered. For the first string the man needs only to point and fire properly. For the second, he must find his target, point and fire. For the third . . . to find the target, point, and fire two shots as a burst. Fourth, to find and follow a runner, pointing and firing. Fifth, same as three but in one-third the time. Sixth, to find and follow a runner at high speed, pointing and firing a burst of two. Seventh, to any or all of the foregoing according to the requirements of the situation. Thus by noting the string at which the man's ability seems to drop off suddenly, the instructor is enabled to trouble-shoot the man and give him exactly the instruction he seems to need. Such additional instruction may, if desired, be given with .22 caliber pistols, until the man appears to be ready to take his qualifications successfully. In this manner the men may be taught most easily and cheaply, and re-taught even more expeditiously, rendering it possible to maintain the highest standards of ability with the smallest annual allowance of time and ammunition.

We don't claim that this is *the* course to adopt, necessarily. We merely claim that this is the *type* of course that we should use in teaching our men combat shooting with the gun with which we most commonly arm them. Having seen the results of such instruction upon the Chinese police officers, we have no hesitation in saying that by means of it *every* Marine can be taught to be a good combat shot, and we know that it is not possible to teach everyone to do good conventional target shooting. We also believe that such methods would make this part of the training more interesting to the men, and that by increasing their confidence in themselves and their weapons morale will be definitely improved.

"THE SENIOR PROFESSION"

By Captain Paul D. Sherman, U.S.M.C.

■ The profession of arms, if not the oldest in the cognizance of mankind is the senior in rank. Any other of greater antiquity has long ago been "passed over" by the selection board which sits on such cases. Today, from length of service, the valor displayed by its members, and the qualities of leadership inherent in it as one of its characteristics, the military and naval service is the senior profession.

But let us consider the military service as a profession. What does that mean? The essential distinction between the practice of a "profession" and the conduct of a mercantile "business" is that the former is purely personal, depending upon the skill or art of the individual, while the latter may consist in the ability to organize and manage a shop or exchange where commodities are bought and sold. A profession is a calling, not commercial, mechanical, or agricultural or the like, to which one devotes one's self; a calling in which one must have acquired some special knowledge, used by way of either instructing, guiding, or advising others or of serving them in some art. Such is the profession of arms, the principle of service being the ideal we are all striving for; service not only to the individual, as in the case of a doctor or a lawyer, but to each and every member of the country to which we have pledged our allegiance.

The efficiency of an army or navy depends largely upon the quality of its officers. They are the leaders, the organizers, the responsible persons whose duty it is to carry out the routine of peace time training and to lead in time of battle. For success in battle, which after all is the ultimate aim of military service, long years of experience and the perfection of skill in the art of war are necessary. An officer of the army or navy, particularly in these modern days of highly specialized machinery, must devote himself exclusively to his calling, his profession.

It should not be necessary to enumerate the many phases of education and experience that go to make up the requirements of an officer in the service. Suffice it to say that they are manifold. With airplanes and tanks, warships and the problem of supplies for large armies, motor transport and chemical warfare, radio and the problems of construction, together with the thousand and one details connected with the maintenance of material and equipping and educating personnel to occupy his mind, the officer must keep himself in the best of physical condition and morally unimpeachable. Divinity, medicine and the law have been called the "learned professions." Now it is submitted that the profession of arms is one of the most "learned" of professions.

Now then, what do we have to offer to encourage men of high calibre to enter this profession? Certainly not pecuniary rewards. An "easy" life, a "soft job"? See the preceding paragraph. Security? Not in these days; and that brings us to a discussion of a sound workable plan for the selection of officers for promotion to ranks commensurate with their abilities. One of the basic principles of the profession is security, and no officer can afford to overlook it, either in the field in the presence of the enemy or in peace time when his existence and that of his family demands the continuation of employment.

The problem of promotion is one peculiar to the military profession. It does not exist in divinity, medicine or the law. It is peculiar to the one because collective effort is necessary. Unity of command is essential and can only be achieved by a definite seniority in rank of the individuals of the organization, so that one mind with the help of others can control and direct the activities of the group. The particular problem is how best to select officers for promotion, bearing in mind the security of those not selected for higher commands.

Promotion on a straight seniority basis, it has been found, results in stagnation and resulting inefficiency. Likewise, with the present system, there are many injustices, with resulting dissatisfaction, discouragement and blasted morale. The officer today is no longer sure of his profession. Years of study and devotion to duty and even a display of the highest courage and valor in moments of great danger in the service of his country may suddenly be wiped away as he faces retirement. He has no other calling to turn to for his livelihood. His profession has been a highly specialized one, the training for which is of no value elsewhere. Therefore, if not selected for promotion, he faces the problem of being thrown out in the world on a retirement pay sadly insufficient to meet his needs. With unemployment so prevalent among men of the commercial world, a man of mature age and accompanying responsibilities has an exceedingly difficult row to hoe.

Compare this situation with that of the other professions. A doctor starting in his practice is in about the same position as the junior officer. He can secure only a meager existence from his profession. However, with increased skill from practice and more experience in his field, he can achieve an increase in standing and income. There the analogy ceases. If his skill and experience are great he may become a Mayo, while if he is only mediocre, he may remain in obscurity in some small town. He is but an average country doctor, earning a small income from his practice and never becoming famous or outstanding.

Nevertheless, this man still has his profession, his chosen field of work, and has a place in the community where he can do his part to promote the general welfare of his fellow man. Take that from him for any cause other than criminal proceedings and you have a man broken in spirit whose life work is gone from him. What an outcry there would be if that were done to a doctor or a minister of the gospel! Yet, that is what is being done to the members of the military and naval service.

What we should have in the way of a system of selection for promotion is a plan whereby the capable officers, those who are capable both from their inherent abilities and from skill and knowledge gained through

experience, are placed in the key positions, while the lesser lights, the officers who go along just doing their work from day to day, are kept in the background. Notice I say kept. While they are not outstanding, still they are retained in the service on jobs which are commensurate with the abilities which they have demonstrated. There are plenty of such positions, now filled with officers who should be going ahead and preparing for higher command.

Such a plan can be found. Here, in a generalized form, is one such. The details have not been worked out, but the principle is sound and conforms with the requirements as outlined above. A promotion law based on this scheme would solve the present problems and take care of future needs.

This principle is simply to pick out a designated proportion of the number of officers to be selected for their efficiency, paying no attention to seniority. After they have been picked, the remainder of the number needed would automatically be taken from the top of the list through seniority.

It would be advisable to have a lesser proportion picked for efficiency in the lower grades, while a greater proportion would be selected on their merits in the higher grades. That is, if we are to promote one hundred Lieutenants, junior grade, we would select say fifteen from the whole list of that grade. They might all be among the top hundred or from the foot of the list. The remaining eighty-five, however, would automatically come from the top of the list.

If we are to pick ten Captains for promotion to the rank of Admiral, we would select nine on their merits, and after they had been picked, the senior man on the list of Captains would automatically go up.

These proportions, of course, are only arbitrary. If such a system were in effect, we would have the benefits of promotion by seniority, and promotion by selection, both working together in a unified system.

Naturally an officer who is only advanced by seniority would not advance very fast, but he would still be working up. He would know himself to be getting ahead, slowly, perhaps, but still he would have something to work for. On the other hand, those at the foot of the list, whose capabilities warrant it, could look to and work for promotion without the handicap of having to wait years for those ahead. In this way we retain the benefits of promotion by seniority, but eliminate the evil of stagnation.

The question of getting rid of undesirables has not been considered in this plan. The writer feels that it has no place in any promotion law nor in the minds of a selection board. If for any reason any officer should not be retained in the service at all, a separate board should meet in his case. Usually, this would be a board of medical officers. They, in all good reason, should be qualified to say whether or not an officer is physically fit. It is obvious that if after a board of medical officers has declared an officer physically fit and a board of line officers says he is not, something is radically wrong. They cannot both be right, and on the face of it, it would seem that the medical officers should be in the better position to judge.

Undesirability for other reasons should be handled in a similar way, either by courts-martial or by other appropriate measures.

When the findings of a selection board are published there is always a great discussion wherever the service meets. Each individual selected or passed over is commented upon. The mess-room discussion is usually something like this: "Why was Major Jones passed over?" "Oh, he had a court in 1921 and lost twenty-five numbers. They wouldn't select him."

Let me suggest that if Major Jones was tried by competent authority in 1921, the merits of his case passed on, and it was adjudged that the loss of twenty-five numbers was the proper penalty for whatever he had done, a different board meeting fifteen years later is exceeding the bounds of its authority to further penalize him. Does not the phrase from the Constitution ". . . nor shall any person be subject for the same offense to be twice put in jeopardy . . ." apply in this case?

The present laws permit a court-martial to apply one of two punishments for offenses other than felonies—either loss of numbers or dismissal. Yet, with the present selection system, a sentence of loss of numbers in most cases carries with it retirement at a not too distant future date. Would it not be better to give a court-martial the power to retire officers immediately rather than retain them until the selection board passes them up? Such a system is in use in the British Navy.

As long as retirement is to be the eventual result of a court-martial sentence, let it come as a part of that sentence rather than deferring it until later years.

Justice for the individual and the good of the whole are the prime requisites of any law. It is believed that an adaptation of such a system as suggested here would accomplish these things and result in better morale for the individual and greater efficiency for the military and naval service—the senior profession.

ARE WE KEEPING OUR PROMISE?

By Chief Q.M. Clerk E. E. Barde, U.S.M.C.

■ When a young man applies at a Marine Corps recruiting office for enlistment he is given a number of pamphlets, beautifully illustrated, describing Marine Corps life. If he applies in person he also receives much information from the recruiter and often from the recruiting officer, in person.

The literature and the personal experience stories of the recruiter appeal to the applicant. They are so much to his liking that he believes them implicitly. To him the things represented are not only possibilities, but even probabilities. He considers them to be a promise, a promise of what he has a right to expect if he enlists, works hard and behaves himself. In exchange for this promise he gives his own pledge, to serve for a period of four years, unless sooner discharged; to bear true faith and allegiance to the United States of America; to serve them honestly and faithfully against all their enemies whomsoever; to obey the orders of the President of the United States, and the orders of the officers appointed over him. That is his share of the partnership formed between him and the Marine Corps.

In exchange for his very definite pledge, we promise him either directly or by inference certain definite rights and benefits. Just what are they?

The recruiting service sends out a great deal of literature to applicants. "Magic China" is the title of one, "United States Marines, Soldiers of the Sea" that of another. "Fifty Facts About the Marines," "Our Flag, Its History and Traditions," "Semper Fidelis," "Marine Corps Institute," and "A Recruit at San Diego" are some of the others. With this is a letter of transmittal, multigraphed, signed by the recruiting officer. It reads in part: "Nearly every young man has an ambition. He would like to travel, is fond of sport, desires to improve himself through education, or would like to branch out in some new field where he can enjoy life and at the same time feel that he is getting ahead in the world.

"Marines travel to the four corners of the earth. They are in Peiping and Shanghai, the Philippines, the Hawaiian Island, and Panama. They are on naval vessels patrolling Asiatic waters, steaming along the coasts of America, or cruising about the West Indies.

"Marines have a splendid correspondence school where you can get, free of charge, an excellent education.

"Nowhere is there a better opportunity for sport and athletics than in the Marine Corps.

"The pay of a Marine increases.

"Opportunities of advancement are awaiting any young man with ambition.

"Retirement after 20 or 30 years' service.

"This is merely an outline of what the Marine Corps offers together with its many interesting duties."

These are the things the applicant enlists for, the things he considerers were promised him in exchange for his pledge:

Travel
Promotion and increased pay
Education
Character improvement
Sports
Security in old age.

Are we giving him all of these? Are we keeping our promise?

For the last two years I have lived in California and, through my young son, have come in contact with many young men of high school age. It does not take them long to find out that I am a Marine, and sooner or later they ask me about joining the Marine Corps. I have talked to them somewhat along the lines of our recruiting publicity, and whether it is because I was very enthusiastic about our Corps, or whether I painted things a little too rosy, some of the parents of these youngsters took me to task and asked me to prove my allegations, to convince them that the Marine Corps is giving young men all the good things advertised.

That set me to thinking and, with the permission of the Commanding General of the Department of the Pacific, I attempted to prove my tale from the records of his headquarters. The results of my effort were most remarkable.

I took the records of 100 men and followed each individual's military career from start to finish. These men enlisted in 1932. Their records were not specially selected but were chosen at random from many hundreds on file. They represent a true cross-section of the men who enlisted in 1932. They are the average. What happened to them, as a group, may reasonably well be expected to happen to the average applicant; 1932 was selected as the year from which to obtain the desired information because men enlisting during that year are the last group to complete their enlistment.

Here is what I found:

First of all, recruiting must have been pretty good in 1932. Applicants galore and the Marine Corps able to pick and choose even more than today. The average height of this group was 69½", average age 20½ years; practically every one a graduate of a high school. They hailed from 33 states.

They were accepted for enlistment at

Seattle	4	
Portland	14	
San Francisco	23	
Los Angeles	48	
San Diego	11	TOTAL 100

Seventy-six, or more than three-fourths, completed their contract. One deserted during the first three months' service, one died, four were discharged because of dependency arising at home subsequent to enlistment, five could not adapt themselves to the rigid discipline of our Corps and were discharged as a result of courts-martial, four because of physical disability, two as undesirable, one for inaptitude. Six were transferred to the East Coast for duty and their complete records were not available to me.

What happened to those who kept their promise?

Did they find what they wanted? Did the Marine Corps keep its promise to them?

One: They wanted travel. I find that 77 men were assigned to sea duty aboard the battleships, cruisers, and airplane carriers, on the Pacific Coast and Asiatic Station; and that during this time the Fleet made three trips to Honolulu, two to the Panama Canal Zone, while several of the cruisers visited South and Central American ports. Fifteen went to Honolulu, one to Guam, four to the Philippine Islands, five to Shanghai, three to Peiping, one to Cuba. Twelve joined the Fleet Marine Force and participated in maneuvers that took that organization to the Hawaiian Islands and to far away Midway. Plenty of travel; therefore let us chalk up one point for our Corps.

Two: We promised them promotion and increased pay. The records show one sergeant, seventeen corporals, thirty-nine privates first class promoted from this group, a better than fifty-fifty proposition. The records available to me did not show other extra compensation such as specialists, post exchange employees, etc. Point two for the Marine Corps.

Three: Education. Unfortunately the records did not show how many took advantage of this opportunity, although it was available to all. While I found no record of the number of students, I was able to ascertain how many of this group graduated from the Marine Corps Institute, and the courses in which they received diplomas. Nine men completed their task; here is what they qualified themselves for:

Immigration Inspector	3
Customs Inspector	1
Postal Clerk	1
Ocean Navigation	1
Salesmanship	2
Spanish	1

I cannot state positively just how many men learned new trades but if they are average, and that is what they appear to be, there were bound to be some who left the Marine Corps as experienced clerks, typists, carpenters, plumbers, chauffeurs, auto-mechanics, cooks or bakers, etc. The records do show that ten went into aviation and seven into the Signal branch of the Corps. While they are not necessarily all pilots or radio operators, the experience gained by them can surely be considered to be educational, since it better qualifies them to earn a living after completion of their Marine Corps service. A third time that the Marine Corps made good.

Four: Character improvement. That is hard to define but I believe that by observing the conduct of the group we can fairly well establish their character and, by inference, the improvement. Let us continue to assume this group to have been "average" at time of enlistment. Average is equivalent to "good." After four years' service what was the opinion of their commanding officer as evidenced by the character awarded on discharge? Again, let us remember that this estimate of character is based on a mathematical average of marks given them at frequent intervals during four years' service. Seven failed to maintain the average; they were awarded character "Bad." Three remained stationary and did not improve from the "Good" we granted them at time of entry, seventeen obtained "Very Good," sixty-three "Excellent." The conduct and general efficiency of thirty-four were so splendid as to warrant award of a good-conduct medal. Seventy-one of the hundred did not commit a single offense during four years' service, proving that while our requirements may be high nevertheless they are not difficult to live up to. Pretty good evidence of character improvement, even if circumstantial.

Five: Sports. Unfortunately the records do not tell just how many of the hundred participated actively in sports. That they are available to each and every one in the Marine Corps nobody can deny. Sports of all sorts —football, baseball, handball, basketball, bowling, tennis, golf, swimming, track, rifle and pistol matches, are to be found at most all stations. Another point to chalk up for our Corps.

Six: Security in old age. Fourteen have decided to take advantage of this by either reenlisting or extending their enlistments. Transfer to the Fleet Marine Corps Reserve, at half pay, after twenty years' service, or transfer to the retired list at three-fourths pay after thirty years offer a modest but steady and sufficient income for old age. Again, another promise made good.

To give a resume of the foregoing, six definite things are promised the Marine at the time of his enlistment. I have just convinced myself, and I trust the reader, that each and every one of our promises is faithfully kept by the Marine Corps. The only requirement is the cooperation of the man by his conduct.

If he keeps his promise, we keep ours.

TABULATION OF FIGURES USED IN ABOVE ARTICLE

LENGTH OF SERVICE

Completed one year's service		92
Completed two years' service		85
Completed three years' service		79
Completed four years' service		76*
*17 of these discharged 3 months prior to expiration of enlistment, at their own request.		
Reenlisted		5
Enlistments extended		9
For one year	2	
For two years	6	
For three years	1	
Joined Volunteer Marine Corps Reserve		38

CAUSE OF SEPARATIONS

Discharged, expiration of enlistment	50	
Discharged, three mos. prior to exp.	17	
Still in service	9	
		Total 76
Discharged because of dependency	4	
Bad Conduct Discharges, S.C.M.	5	
Medical Surveys	4	
Undesirable Discharges	2	
Inaptitude	1	
Died	1	
Deserted	1*	
Transferred out of the Department of the Pacific	6	
		Total 24
GRAND TOTAL		100

*Deserted during first three months' service.

DUTY ASSIGNMENTS

Sea Duty	77
Aviation	10
Foreign Station	29
East Coast and return	14
To Pearl Harbor and Midway Islands with Fleet Marine Force	12

NOTE: Apparent discrepancies caused by several individuals performing both sea and foreign service during enlistment.

PROMOTIONS

TO: Sergeant	1
Corporal	17
Private First Class	39

PROMOTIONS MADE WHILE SERVING

	Sgt.	Cpl.	P.f.c.
Aboard ship	....	9	31
On foreign station	1	....	5
With aviation	....	4	3
With signal troops	....	4	....
Line duty in U. S.		None	

PERHAPS OUR SONS WOULD BE INTERESTED

■ It took a citizen from far southwest Oklahoma, the Honorable Wesley E. Disney, to sponsor a long needed measure. Our sons might have a flair for such a career. Certainly if travel and experience count, they hold some advantage over the average boy. Congressman Disney claims that the Navy has it national Academy at Annapolis and the Army has its national Academy at West Point; therefore, the State Department should have a national Academy also, and he has asked that it be called the National Academy of Public Affairs, located in Washington.

The below is a facsimile of the Congressman's Bill which is self-explanatory.

This Bill will be brought up during next session.

75TH CONGRESS, 1ST SESSION—H. R. 3141

IN THE HOUSE OF REPRESENTATIVES

JANUARY 18, 1937

Mr. Disney introduced the following bill; which was referred to the committee on Education and ordered to be printed

A BILL

To establish the National Academy of Public Affairs, providing for a Board of Supervisors therefor, and making an appropriation for its establishment and maintenance.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there is hereby established in the District of Columbia a public insttiution to be known as the National Academy of Public Affairs.

SEC. 2. The purpose and function of said Academy shall be the training and education of men and women for diplomatic and administrative service in national and international affairs, with a view to a career service on the part of its graduates, who shall have a civil-service status upon graduation with all rights under the retirement laws of the United States.

SEC. 3. There is hereby created a Board of Supervisors of said institution, composed of the Secretaries of State, Treasury, Interior, Commerce, Agriculture, and Labor, said Secretaries to be ex-officio members of the Board of Supervisors without additional compensation for their services.

SEC. 4. Said Board of Supervisors shall be a body corporate with corporate rights and functions for the purposes of this Act. It shall provide a site; appoint officers, a faculty, teachers, and members; fix the duties and compensation thereof; and do all the other things necessary to establish and maintain said institution.

SEC. 5. The said Board of Supervisors shall be required to keep and maintain said institution in all respects on a strictly nonsectarian and nonpartisan basis.

SEC. 6. Students of said institution, selected as hereinafter provided for, shall have the right of membership in said institution as students free of charge; and the Board shall make provision for their living and maintenance. No student shall be admitted under the age of seventeen or over the age of twenty-five, under proper requirements as to physical fitness; and each shall have had at least two years of resident college work prior to admission. The institution shall be coeducational. The courses of study, eligibility, and requirements of applicants for admission and the conduct of the Academy shall be prescribed by the Board of Supervisors. Each student shall on entrance take an oath to support the Constitution of the United States. Each congressional district shall have one student in the Academy, appointed by the Congressman, and each State shall have two students appointed by the Senators. The President may appoint fifty at large and from the District of Columbia and Puerto Rico. The system of selection shall conform as near as may be to the present plan of selection of students to the United States Military and Naval Academies; said students shall be residents of the States or districts from which they shall be chsoen.

SEC. 7. There is hereby authorized to be appropriated from the Treasury of the United States for the purposes of the organization and expenses of the said institution and its initial maintenance, including the purchase of site and the erection of buildings therefor in the District of Columbia, the sum of $5,000,000. There is also authorized to be appropriated such sums as may be necessary for the annual maintenance of said institution.

SEC. 8. The Board of Supervisors shall make an annual report to the President of the United States.

—ED.

MR. MEMBER!
HAVE YOU
PAID
YOUR DUES

THE NAVAL ATTACK ON THE DARDANELLES

A Magnificent Scheme Doomed to Failure

By Captain A. R. Pefley, U.S.M.C.

The European Situation in 1914

■ In 1914 Europe was at war. Arrayed against the Triple Entente consisting of England, France, and Russia, were the mighty armies of Germany and her ally, Austria. Italy, in spite of an alliance with Germany, maintained a questionable neutrality waiting to be certain of being on the winner's side. At the end of October Turkey was coerced onto the side of the Germans. Rumania, Bulgaria, and Greece were restless and wavering.

This conflict although it had impended for many years had struck swiftly. The efficient German war machine had devastated Belgium and Northern France, but had finally been stopped by a frantic, desperate, French army. England had rushed her half trained divisions across the channel and was grimly holding her part of the line. As the defense stiffened a series of wide envelopments rapidly extended the battle line until the north flank rested on the ocean and the south on the mountains of neutral Switzerland. It was not long before the islands of resistance had been connected with an elaborate series of trenches extending along the entire front, making it possible for a soldier to walk from the south flank to the north without exposing himself above ground. Many stupendous frontal attacks were tried, but the losses were so appalling and the gains so slight that the generals were convinced of what they already knew—that the direct attack against a strong front was unwise. The fury of the first offense had spent itself. For the time the defense had triumphed. The Western Front was deadlocked.

On the Eastern Front a Russian army at Gumbinnen had gained an initial success in East Prussia against the vacillating Von Prittwitz, commanding the German Corps, but with the creation of the Hindenburg-Ludendorff team this minor victory was short-lived. Tannenberg, the Cannae of the World War, followed Gumbinnen and two Russian armies, badly equipped and poorly led, were not only driven from East Prussia, but practically annihilated. It is not amazing that by the end of 1914 Russia was calling frenziedly to England for help.

England Reigns on the Sea

On the sea England reigned, as she had done through the centuries. Her Grand Fleet secured the coast of Great Britain and France, and with her great supply of swift cruisers controlled the commercial sea lanes of the world. The German High Sea Fleet, no insignificant Armada itself, was anchored in snug harbors along the north German coast, but it dared not risk a decisive combat. Two lone German ships, the Goeben and the Breslau, had miraculously escaped capture in the Mediterranean by steaming through the Dardanelles and finding safety in the Black Sea. This remarkable escape occurring before Turkey declared war indicated that a German-Turkish alliance was at hand. As yet the submarine had not appeared. England had not only sufficient modern ships to maintain her sea supremacy but in addition possessed many old battleships for which she could find little employment.

Out of the above situation was created a naval expedition which has been called everything from a scheme to a fiasco. However, before we discuss this remarkable affair which is known officially as the Gallipoli campaign let us digress for a moment and consider the reasons why some twenty years later we give a great deal of time to its study and analysis.

Why We Study the Campaign

The details of the attacks on the Dardanelles are important only in so far as they portray a principle. The exact range, the caliber, and the number of the Turkish guns defending the straits or the armament of the various British vessels involved are of no consequence. Likewise, it is not for us to criticize the tactics, the decisions, and the plans, of the high authorities involved. It is easy after a battle has been fought, when all the forces concerned can be portrayed on paper, to make the proper decisions. Under the pressure of battle when a faulty decision may change the course of history, and when definite information is lacking, it is not a simple matter. Let us therefore not be too harsh in our criticism of the people responsible for the innumerable mistakes associated with the Dardanelles campaign. Rather let us study those mistakes, those colossal blunders, with a view of realizing clearly the penalty of unsound thinking, bad preparation, and poor judgment.

After one of Napoleon's famous battles a historian remarked to him that the tactics of the battle reminded him of those of Xenophon. Napoleon replied that they were the tactics of Xenophon—that it was from Xenophon that he got them. "Read and Re-read" is one of the maxims of the famous Corsican.

Intelligence added to knowledge algebraically gives wisdom. Algebraically, for intelligence can be a minus as well as a plus value, especially in a military situation. From books and laboratories we acquire knowledge. A valuable source of intelligence is found in history, for in the lessons of the past we find a field of vast information. Hence, let us approach the study of the Dardanelles with a view of seeing wherein this great venture, which might have ended the war in 1915, failed. Let us realize the result we may expect from haphazard plans, and faulty thinking.

Results to be Gained by Forcing the Dardanelles

Winston Churchill, First Lord of the Admiralty, had long championed the idea of establishing a line of communications with Russia through the Black Sea, but as both British Naval and Military authorities condemned such an undertaking, his plan was prevented. However, when, on the 2nd of January, 1915, Russia called frantically for help, and for a demonstration of some kind

THE STRATEGIC SITUATION

to relieve the pressure on the various fronts where she was being defeated, Mr. Churchill renewed his plea. A successful Gallipoli campaign had for its object many important results:

1. A line of communications with Russia to gain access to her surplus wheat and in turn to supply her with much needed munitions.
2. To relieve the Russian Army which was being sorely pressed on many fronts.
3. To insure the neutrality of the Balkans, especially Bulgaria.
4. To bring Italy into the war on the side of the Allies.
5. To cut Turkey out of the war.
6. To keep the Near East quiet.

That the results were worthy of a great venture there can be no doubt. It was a magnificent scheme.

On January 3, Mr. Churchill cabled to Admiral Carden, Commander of the Mediterranean fleet, asking whether the Dardanelles could be taken by ships alone even at a severe loss. England had no troops for such a use at this time as all her divisions were committed in France. However, a fleet of old battleships was available and it was these Mr. Churchill proposed using. His cable to Admiral Carden obviously demanded some encouragement and it is perhaps very unfortunate that this encouragement was provided by a political answer. The Admiral replied that the forts could not be rushed but by extended operations with sufficient ships *might* be taken. This gave Mr. Churchill new ammunition with which to face the war council. He again cabled Admiral Carden: "High authority concurs in your opinion. Forward detailed particulars showing what force you believe would be required and how it should be employed." This message led Carden to believe that Lord Fisher, First Sea Lord on the War Council, and Sir Arthur Wilson, Admiral of the Fleet, approved the plan. Hence, without further comment he then submitted a plan, which Mr. Churchill used as the views of the "man on the spot" to convince Lord Fisher and Admiral Wilson that it was an outworn adage that ships could not fight forts. This was an unintentional bit of chicanery, perhaps, but it induced the War Council on February 13, to decide that the Admiralty should prepare for a naval expedition as soon as a fleet could be assembled, to take the Gallipoli Peninsula with Constantinople as its objective. It was a plan admirably conceived but as we shall see disgracefully executed.

A Base at Lemnos

On February 16, just three days before the first attack on the forts, Rear Admiral Wister-Weymss was ordered to establish a base at Lemnos, an arid Greek island, some sixty miles from the entrance to the Dardanelles. Facilities were utterly lacking and it was only through the great zeal, the tremendous initiative, and the fine tact of Wister-Weymss that the base was of any use to the expedition. To indicate the nonchalant manner in which the War Council treated the various details of the campaign, I quote briefly from Wister-Weymss: "My chief source of anxiety lay in the shortness of fresh water. I had from the very beginning ascertained that the local supply was barely sufficient for the inhabitants and that I should soon be called upon to satisfy the needs of some thousands of men. I telegraphed to the Admiralty for condensing ships, only to receive the reply that none were available and that I must make use of the water the island contained, which, the telegram added, 'The Mediterranean Pilot,' an unofficial publication, a sort of Mariner's Guide, informed them was plentiful. But Malta came to the rescue as ever and sent fresh water in the double bottoms of every ship despatched to Lemnos, a slow laborious method of providing it but better than nothing."

The Forces Involved

By February 19, Admiral Carden had assembled his fleet and was ready for the attack. His force consisted of sixteen battleships, four light cruisers, twenty-two destroyers, six submarines, and thirty-five mine sweepers. Included in the ships was the Queen Elizabeth, England's newest battle cruiser, mounting eight 15-inch guns. Her assignment to Admiral Carden was an afterthought. She was so newly commissioned that she had not had time to fire her gunnery tests. Admiral Fisher thought it would be a good idea to make the tests against the Dardanelles. The rest of the ships although possessing considerable armament were too old for duty with the Grand Fleet. The main batteries of these pre-dreadnought battleships consisted generally of twelve-inch guns, and the secondary batteries of from four to nine-inch guns. The range of the ship's guns were considerably greater than those of the forts.

The Turkish defenses, distributed in depth, consisted of three main lines of resistance: (1) At the entrance were the forts of Cape Helles on the European side and those of Orkanie on the Asiatic side mounting principally nine, ten, and eleven-inch guns. (2) The Intermediate defenses consisted mainly of some twenty-seven mobile howitzer batteries which were as we shall see of great annoyance to the ships. (3) The main defenses of the straits had wisely been placed at the narrows. Here were located the 14-inch guns of the Hamidieh Forts. In addition to the guns of the forts the Narrows were defended by a great concentration of mine fields.

The Plan

Admiral Carden planned first to attack the forts from positions well out of range of the land batteries. When

the forts had been heavily bombarded by long range main battery fire the ships were to close in and with secondary batteries complete the work of destruction. Following the attack the intermediate batteries were to be destroyed, the mine fields swept, and finally a grand engagement against the forts at the Narrows, preliminary to sweeping into the Sea of Marmora and capturing Constantinople.

Early in November the British had bombarded the entrance forts from long ranges without obtaining any information of what strength might be expected. In fact this meager attack had little result except to inform the Turks of what might be expected later. Keeping the enemy constantly informed by preliminary ineffective actions of what was to occur later seems to have been the dominant idea of the British throughout this entire campaign.

Penetrating A Narrow Front

Let us analyze for a moment this naval attack against forts. The most significant thing, as we can see by viewing the chart of the area, is that the defenses are thoroughly organized in depth. As to the attack it is equally obvious that it is a penetration. Is the Turkish line overextended? Do their flanks rest on impregnable terrain features? Is time pressing? Do the attacking forces have superiority of numbers? The answer to all these questions is in the negative. Yet with not one tactical principle indicating such a procedure we see the British penetrating by a naval attack against forts, a narrow front strongly organized in depth. It is hardly necessary to proceed farther to know what happened.

The First Attack

At 9:51 A. M. February 19, 1915, the first attack began. In accordance with the plan six ships anchored outside the range of the entrance forts and, assisted by the spotting from other ships, engaged the land defenses at 14,000 yards. This fire continued until 3 P. M., when the ships moved into prearranged areas at medium ranges. For an hour and a half a terrific bombardment took place bringing forth little response from the Turkish batteries. Late in the afternoon the range was closed to less than 5,000 yards and the forts engaged with secondary batteries. At this time both Helles and Orkanie opened fire but were soon silenced. In order to conserve ammunition the fleet withdrew at 5:30 planning to continue the fight the following day. Summary: the effect of the long range bombardment was slight and although a number of hits were obtained no batteries were put out of action. Likewise, no ships were injured although they had been fired at by two batteries at a range of less than 5,000 yards.

That night a six-day storm blew out of the Mediterranean preventing a continuance of the attack until February 25. On this day it was planned to divide the attacking force into three groups as follows:

1. Supporting ships to anchor, and from long range keep the forts under a continuous fire to prevent the crews ashore from manning their guns.
2. Attacking ships, working in pairs, to steam into close ranges and with direct hits destroy every gun and then withdraw.
3. When this had been accomplished demolishing ships were to enter the straits and complete the work of destruction.

Accordingly, four ships anchored at 12,000 yards on the morning of February 25, and began a deliberate long range bombardment. A little later when the Agamemnon came into 10,000 yards she was hit seven times by the Cape Helles batteries but continued in action. About noon the Queen Elizabeth silenced Helles with two direct hits. Early in the afternoon the attacking ships closed the range to 3,000 yards and began a terrific bombardment with secondary batteries. The long range fire had evidently been effective as even at this short range the forts fired only a few shots. By 4 P. M. the demolishing ships and mine sweepers had joined the attack and at point blank range silenced all the forts. The fleet withdrew to Lemnos leaving the sweepers to search for mines. The following day demolition parties were landed on both shores and meeting with little opposition destroyed most of the guns defending the entrance. Thus ended the first phase with a high degree of success. Only one ship, the Agamemnon, had been slightly injured, and the entire outer defenses had been destroyed. The outpost had been driven in and the Turks were forced to defend along their second line of resistance.

The Second Phase

Again a storm prevented operations for a few days, but by March 1st conditions were suitable for the attack against the intermediate defenses. There now began a series of indecisive actions which we shall look at in chronological order.

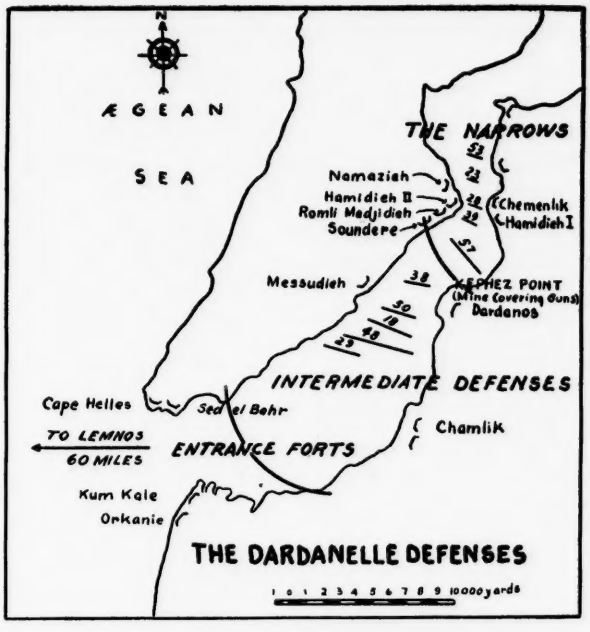
On March 1, four battleships accompanied by destroyers passed through the entrance unmolested, but as they came in range of the numerous batteries of the intermediate defenses they were fired upon from many directions at the same time and forced to withdraw.

The plan was changed for the March 2nd attack. Close to the European shore a dead space for guns on that side up to 7,000 yards had been discovered. Hence, two battleships, the Canopus and the Swiftsure, occupied this area and began a deliberate bombardment of Fort Dardanos which lasted for two hours. At about 4 P. M. Dardanos made a spirited reply, straddling the Canopus and forcing a withdrawal. Numerous howitzer batteries on the European side engaged the ships at the same time. From positions down the straits fire was concentrated on Dardanos. To this fire there was no response and the ships withdrew believing they had accomplished their mission.

The Defenders Warned

On March 4th an event occurred which is worthy of note. A large demolition party was sent ashore to blow up the guns of Kum Kale and Sedd El Bahr. Ten days before smaller parties had experienced little opposition in destroying the guns at the entrance forts. However, in this case heavy resistance was encountered and only after a severe fight and under cover of darkness were the troops withdrawn, their mission unaccomplished. Again the British had warned the defenders with an insignificant action of what was to come later.

On the 5th and 6th of March the Queen Elizabeth



anchored west of the Peninsula and by indirect fire attacked the European forts of the inner defenses. Thirty rounds of 15-inch shells were expended with no hits. Mobile batteries finally drove the great battle cruiser away with nothing accomplished.

A concentrated bombardment against the inner forts was delivered on March 7th, but with little result. Shore batteries of mobile howitzers were a source of perpetual annoyance to the ships. Although they did little damage, they made numerous hits, which kept the ships constantly on the move, thus preventing a deliberate bombardment against the inner forts. Likewise, they covered the mine fields so effectively that the trawlers had little success in clearing the channel. These attempts at mine sweeping took place from the 8th until the 18th of March. Hardy, brave, fisher-folk and their trawlers had been imported from the North Sea to do the work, but sweeping mine fields at night under a concentrated fire of numerous shore batteries was a task of too great magnitude for even such courageous people. Volunteers from the fleet finally manned the trawlers, but their efforts brought forth little success, although their losses were heavy.

The attack on the intermediate defenses was decidedly a failure. The ships had suffered a great deal of damage and nothing had been accomplished. The defenses were not only as intact on March 18th as they were on February 25th, but like the mine fields, had been strengthened considerably. Thus, in the third phase of the operation the fleet had to defeat the strongest part of the defense and in addition had to encounter the added menace of the innumerable, unsilenced batteries of the intermediate defenses and the great fields of mines.

The Final Attack

In spite of this appalling situation, plans were made for a determined attack against the inner forts. The scheme was much the same as that of February 25, which had been so successful. However, the situation was entirely different.

1. The Narrows Forts were much stronger than the entrance forts.
2. The Intermediate defenses could prevent deliberate fire from the ships.
3. The fleet was now faced with numerous mine fields.

On the 18th of March the plan was put into execution. Four main ships took station at 14,000 yards from the Narrows. Six ships were concentrated against the intermediate batteries. When the forts at the Narrows had been silenced these ships were to cease firing on the intermediate defenses and close to within 8,000 yards of the Narrows, just outside the mine field. When they took up the fire from this position the four main ships were to close to 12,000 yards and continue the bombardment. At 11:30 A. M. all ships were in position and opened fire. By 12:20 fire superiority had been gained and the second line passed through the first to close range. At 10,000 yards they came under intense fire. Four reserve ships were brought up at 01:45 to relieve the attacking ships, which had received considerable fire from the heavy guns of the inner forts. While coming out of the line the Bouvet struck a mine and sank so quickly that the entire crew was lost. At 04:15 the Irresistible struck a mine and had to be abandoned. The Ocean attempted a rescue, but came under such heavy fire that her efforts were of no avail. In fact, an hour later, she herself struck a mine and likewise had to be abandoned. The fleet was ordered to withdraw at 05:50 P. M., ending the naval attacks against the Dardanelles. During that afternoon three battleships had been lost, three so badly damaged as to be indefinitely out of action, besides minor damage suffered by the other ships which had engaged in the fight.

Ships Against Forts

In conclusion, it is evident from the consequences of this disastrous naval expedition that Napoleon was correct when he stated that one gun ashore is equal to ten at sea. The results of the final attack may be summed up as follows: The fleet lost forty-four large guns and had fifty-two put out of action indefinitely. The Turks lost one gun, and had seven disabled temporarily. Seven hundred officers and men of the attacking force were either killed or drowned. The Turks lost forty.

But the most disastrous result of this colossal failure was the ample warning the futile bombardments had given the Turks. The entire affair is a splendid example of what not to do in an overseas expedition. The following errors might be listed:

1. Utter lack of planning.
2. Lack of coordination between the Army and the Navy. Each made a piecemeal attack unsupported by the other.
3. The ponderous War Council, headed by civilians, not only told the troops what to do, but how to do it.
4. A civilian attempted to conduct the operation from London.

English soldiers and sailors died like heroes, as they

(Continued on page 65)

AUTOMATIC WEAPONS

By First Lieut. Melvin M. Johnson, Jr., U.S.M.C.R.

Part I

■ "Automatic Weapons" include machine guns, which are "self-firing"; semi-automatic rifles, which are "self" or "auto-loading"; "machine rifles," which may be fired "full automatic" or semi-automatic; "auto-loading shotguns," which, like the semi-automatic rifle, are fired by pulling the trigger for each shot; "sub-machine guns," which shoot pistol ammunition, full or semi-automatic; "automatic pistols," which are actually semi-automatic or self-loading. The reader is undoubtedly familiar with the Browning, Maxim or Lewis machine guns; the Model 8 Remington or the Winchester (.351 and .401) "self-loading" or semi-automatic rifles; the "Browning Machine Rifle," cal. .30 Mark I, weight sixteen pounds, fired full or semi-automatic (known as the "B.A.R."); the Remington or Browning auto-loading shotguns; the Thompson sub-machine gun, cal. .45 A.C.P.; the Colt or Luger "automatic" pistols, and many others.

Before discussing the mechanical problems which this subject inevitably raises, let us answer three basic questions:

(1) Is there any demand for a *military* semi-automatic rifle?

Yes! The Ordnance Department, U. S. Army, has spent many years in experimenting with such rifles. At this time the "Garand," a gas-actuated military rifle, cal. .30, Mark I, is about to be issued in very limited quantities to troops. The following is quoted from the Encyclopedia Britannica, 14th Edition, (1929), "Small Arms," section on "automatic rifles," page 809:

> "Though a great deal of work has been devoted over a number of years in various countries to endeavoring to produce a really reliable weapon, no army has yet adopted this form of fire-arm, although Germany used the Mondragon during the World War. With all the experience now available, and the continual experimental work and development, a really satisfactory weapon may perhaps become an accomplished fact. The problem, however, is one of great difficulty because, while such a rifle has necessarily to be almost of the same weight (ten pounds) as the military rifle, it has to comprise in addition to the parts present in that rifle, the *extra* parts required for automatic operations, and these, to be durable, must add appreciably to the weight. In the past, gas and recoil operated systems have been tried, and also special ammunition, but although inventions have been numerous, no rifle of this nature has been found sufficiently free from defect to warrant its adoption."

(2) Is there any demand for a sporting semi-automatic rifle capable of functioning with high-powered cartridges such as the .30-06, .270 Winchester, .257 Roberts, .300 Magnum, etc.?

Yes! We have at present no rifles of this type. The .351 and .401 Winchester rifle is not suitable for high-powered loads, and the model 8 Remington is limited to pressure in the .35 Remington cartridge. Many years ago the old "Standard," a gas-actuated self-loader, was sold on the market. The mechanism, however, was not satisfactory. The above-mentioned commercial "auto-loaders" are not extremely popular. People do not want a "semi-automatic" so much that they are willing to sacrifice power or accuracy. But if power and accuracy can be combined with rapidity of fire, the history of the Henry (later the Winchester) lever-action rifle versus the Sharps and other single-shot arms will repeat itself. The "full-fledged" semi-automatic is but another step in the line of progress, though a difficult one as we shall see.

(3) Inasmuch as there is a demand for a semi-automatic rifle, why have we not built one?

Because inventors have been unable to solve the problem of designing a simple, reliable, high-powered, self-loading weapon.

In taking up the mechanical aspects of automatic weapons, we must inevitably do so from the standpoint of the inventor, rather than from that of the historian, collector, patent examiner, mathematician, or physicist. The reader must constantly bear in mind our Mission or Objective, which is to design a thoroughly simple yet rugged mechanism. The reader must also remember that to construct an elaborate, complicated "contraption" capable of throwing out empty cases automatically, is *not* to accomplish the mission. Obviously, we are faced with somewhat of an inventive problem, because there exist few if any semi-automatic rifles of any merit whatever, whereas there are many types of machine guns.

What must our semi-automatic rifle do? First of all, we must analyze the cycle of operation.

(1) The cartridge must be fired.

(2) The bullet must be forced by expanding powder gas through the barrel and out of the muzzle.

(3) At some time just *after* the pressure in the chamber has dropped to a safe limit, the breech-lock or bolt must be unlocked, the unlocking power to be taken from some component of the force derived from the explosion.

(4) When the breech-block or bolt is unlocked, some component of the force derived from the explosion must effect initial extraction plus the retraction of the breech-block or bolt to the rear of the frame or receiver. This component of force which causes retraction must also cause the compression of the counter-recoil or main-spring; that is, it must store up sufficient energy to effect the return of the breech-block or bolt into the forward, locked position, besides providing sufficient force to feed in the succeeding cartridge from the magazine.

(5) As the breech-block or bolt comes to the rear of *its* frame or receiver, the empty case must be ejected.

(6) Energy having been stored up, as described in (4) above, the breech-block or bolt must move forward, loading and locking the arm.

(7) Either on retraction or return of the breech-block, the actuating force must be employed to cock the hammer or striker mechanism.

Caveat: Due to roughness of parts, dirt, or other

adversities, no mechanism can be reliable which does not have an ample reserve of actuating power, more than sufficient to accomplish the above operations, more especially to compress an adequate spring.

An example of the above cycle, familiar to everyone, can be found in the Remington or Winchester self-loading cal. .22 rifles, or the Colt cal. .22 "Woodsman" pistol. The breech-block of the Colt, for example, is heavy enough to resist momentarily the pressure of the cartridge used. Inertia holds the block against the base or head of the shell until the pressure has appreciably dropped. Then the breech-block gives way, and is blown back against the mainspring. This movement cocks the hammer. The empty shell is thus extracted and "blown back" till it strikes the ejector and is thrown from the gun. The mainspring then expands, pushing the breech-block or "slide" forward, which movement also accomplishes the re-loading of the arm. As stated above, the weight of the block, combined with the relatively light pressure of the .22, makes breech-locking unnecessary.

What forces, originating in the explosion, can we employ to provide actuation for the automatic weapon? Technical terminology is particularly undesirable here, especially as this is not a physics treatise. These questions seem better adapted for a layman's answers.

What happens when a gun is fired? First, the firing pin hits the primer. Second, the primer ignites the powder. Third, the powder burns, forming a gas. Fourth, the gas expands, pushing the projectile through the bore, also thrusting the cartridge case against the walls of the chamber, and *also* pushing with great force against the breech-block or bolt.

Consider a conventional .30 model of 1906 or Mark I cartridge fired from a 1903 Springfield rifle. The expanding gas forces the thin brass neck of the shell against the chamber walls, thus sealing against gas leakage, or, if you prefer, providing obturation. The bullet is forced through the barrel while a pressure of about 50,000 lbs. per sq. in. is exerted against the bolt-head. The actual force exerted is about 6,500 pounds. Obviously such pressure necessitates a very strong breech-locking system, such as the Mauser-type rotary bolt, used in the Springfield rifle.

This force, exerted against the bolt, is transmitted through the receiver to the stock, thence to the butt, and thence to the operator's shoulder. The reaction which he experiences on his shoulder is known as the "recoil" or "kick."

We might utilize the blow or "push" on the bolt-head to actuate the automatic, or we might harness up the "kick." But what about the expanding gas in the barrel? We might take some of that through a gas port into a cylinder, where it could act upon a piston, which in turn would unlock and retract the breech-block during the piston's rearward movement. Thus we could follow a familiar "engine" principle.

The utilization of gas taken from the barrel into a cylinder is commonly referred to as "gas-actuation"; that of employing the force exerted against the bolt-head as "blow-back" or "retarded blow-back"; that of the "kick" as the "long-recoil" where the barrel travels several inches, and "short-recoil" where it travels a fraction of an inch. A discussion of slidable barrels in connection with "recoil actuation" will be given later.

There is a force, however, which may be used to retract the breech-block, although it is not operative, analytically, to unlock the breech. That force is described as "residual pressure," and such a force is present in every firearm for a very small fraction of a split second when the bullet has just left the muzzle. For example, while the bullet is in the barrel, the gas is confined. At the instant the bullet leaves the muzzle, the pressure is about one-fourth of the maximum, or about 12,500 lbs. per sq. in. in the .30-06. During the time which elapses while the bullet is traveling several dozen feet from the muzzle, there is a rapid reduction in pressure in the chamber and barrel of the rifle. If the bolt were unlocked while some pressure remained, the bolt would be thrust back by this residual pressure, with a force sufficient for retraction. In short, the pressure does not drop suddenly to zero the instant the bullet has left the muzzle. Some pressure remains, although it does drop to zero very rapidly. This "residual pressure" actuates the *retraction* of the breech-blocks of several weapons in common use. Invariably it is used for retraction in weapons of the blow-back and retarded blow-back type.

These are the basic forces which may be used to furnish actuation. There are many combinations of these. Moreover, there are schemes of divers sorts which contemplate collecting gas at the muzzle so as to give a "blow-forward" effect; and there is the "primer set-back" system, and many more, some of which could only have been conceived by the cartoonist, Rube Goldberg. Of all these blow-forward, blow-sideways and blow-down contraptions, the most they have in common is their one consistent feature, that of the "blow-up." Seriously, such mechanisms do not in any way approach the Objective which we must seek to attain, irrespective of their ingenuous characteristics.

Before discussing some of the more familiar mechanisms, we should consider the amount of pressure which our automatic must withstand, in connection with the design of the breech-locking system to be used. At once we are faced with the significant fact that the Mauser-type, rotary bolt is used on every high-powered rifle in military and sporting circles. Consider the Springfield, Remington, and Winchester bolt actions. Consider the number of nations using the "pure" Mauser. We must be careful to avoid fitting our breech-locking system to our actuation. Preferably we should use a rotary bolt, having ample locking lugs, and fit our operating parts to such a bolt. Several long articles might be written on breech-locking systems alone. Whatever may be alleged as to the systems which are superior in simplicity to the Mauser type, they have yet to be produced. Drawings, sketches, and mathematics are very misleading. Actual experimentation is the most reliable method of arriving at accurate conclusions. Of course, experiments are often "all wet," as, for example, that of Archimedes, who uncovered a principle of physics in his bath-tub.

Having in mind this question of the breech-locking system, we may consider the possibilities of gas-actuation. In this type we provide a gas port in the barrel near the

breech, or toward the muzzle, or at the very tip of the muzzle. The gas acts on a piston, either as an "expanding gas," or as an "impinging" gas. The former would be analogous to the action of gas in the barrel itself; the latter is more aptly described as a "blow." Expanding gas provides a smoother action, but the mechanism must be more complicated than that required for a conventional impinging-gas actuation.

The residue of powder gas, primer salts, etc., deposited in the bore of a rifle is not at all desirable, and the bore must be cleaned carefully. With the same fouling deposited in a gas cylinder, the latter, as well as the piston, must be cleaned very frequently. It is difficult to conceive of a method whereby we can use powder gas in a cylinder without encountering considerable clogging as a result. However, if the gas is taken from a point near the breech, the "flame" is hotter, we are nearer the origin of combustion, and less difficulty is encountered.

On the other hand, we must not try to unlock the breech-block until the bullet has left the muzzle. So the nearer the gas port is placed to the breech, the more the delay to be effected in the unlocking. The tendency of inventors, therefore, is to locate the gas port near the muzzle, or, better still, just at the muzzle. Thus, when the piston is driven backward by the gas, the unlocking of the breech may be accomplished almost immediately. However, this action must be delayed slightly to permit the chamber pressure to drop materially, except in those mechanisms which seek to utilize residual pressure for retraction and employ a gas piston for unlocking only.

The location of the gas port at the muzzle necessitates the clearing of the piston and cylinder at very frequent intervals. In addition to this disadvantage, the gas-actuated mechanism, in general, is subject to several others. For example, such a mechanism, with its piston and cylinder, requires the most accurate manufacturing operations. The parts are more complicated, and stainless steels are essential for those operating parts contacted by gas. The very closest fittings are mandatory. In order to keep down weight, the cylinder must be so light that it may be bruised or dented in service. Some sort of "connecting rod" is needed to transmit the operating power to the breech-block. On such rifles, the mainspring is usually located under the barrel, thus subjecting it to heat, and in consequence requiring special steel wire. Moreover, there is not sufficient room under the barrel for a spring of adequate diameter. Where the gas port is located in the muzzle, dirt and other foreign matter can more readily enter the cylinder and contribute to the clogging of the action.

The Browning Machine Rifle, cal. .30-06, model of 1917, is an excellent example of the gas action. On several occasions these weapons have been found to jam badly, due to powder residue in the cylinder. On this rifle, due to the clogging of the gas port, a means of adjusting the size of the port is provided. The new Garand, known as U. S. semi-automatic rifle, cal. .30 Mark I, is a most promising gas-actuated rifle. Circumstances compel me to refrain from a specific discussion of this weapon, other than by way of confirming the comments made above, relative to gas-actuated mechanisms. Such a rifle is, of course, quite expensive. Great difficulties have been encountered in producing this weapon, and the Ordnance Department, U. S. Army, deserves the highest praise for having succeeded in commencing the production of a limited number, which may be ready for issue to special troops in another year or two.

In conclusion, I respectfully submit that a gas-actuated rifle is not the answer to the "prayer" of infantrymen and sportsmen for an ideal semi-automatic shoulder rifle. Those interested in machine guns will find that the Colt, Lewis and Hotchkiss are gas-actuated, as is the Bren "light" machine gun, recently adopted by the British government to replace the Lewis. Several inventors have submitted designs incorporating gas-actuation for unlocking, which were "timed" to utilize residual pressure for retraction. As to those, it is submitted that, aside from a consideration of "residual pressure," the employment for any purposes of powder gas taken from the barrel is not a practical principle, *not* because the actuation can not be reliably obtained, *but* because such a principle is not essentially simple, and lacks reliability when subjected to the normal adversities of service use.

Blow-back or retarded blow-back systems of actuation are worthy of careful attention in our consideration of an operating mechanism for the high-powered semi-automatic shoulder rifle. The reader is asked to recall our discussion of the source of this power.

When the rifle is fired, the breech-block, so to speak, "wants to blow back." Normally, the bullet moves rather than the breech-block, and we fervently hope such will always be the case. This homicidal tendency of the breech-block necessitates an adequate means for locking the breech so as to support the base of the cartridge case. But if we can prevent the breech-block from blowing back during the interval of critical pressure, it would be quite feasible to allow the breech-block to blow back after the bullet has left the barrel and the pressure has dropped. Sufficient force could be obtained to extract the empty case, cock the hammer, compress the mainspring, retract the breech-block, and eject the shell. Delay in unlocking or, more accurately, delay in retracting, is obtainable by providing a breech-block of sufficient weight. We previously discussed the Colt .22 pistol in this connection. For the cal. .30-06 cartridge, about a twenty-seven pound breech-block would be required. However, a heavy iron bar, attached to the breech-block, is sufficient for the .351 and .401 Winchester rifle.

We must find some mechanical means to delay the unlocking of the breech-block, and such a system as will insure a proper amount of residual pressure at the moment of unlocking, to provide retracting power. Such a mechanism inevitably centers itself in the breech-block, the face or head of which receives the actuating power when the cartridge is exploded.

The Thompson sub-machine gun, cal. .45 A.C.P., is of the retarded blow-back type. The following is a description of the action of this weapon:

> "The expanding powder gases, after the cartridge is primed, drive the bullet out through the bore of

the gun; and they transmit pressure rearward, through the forward end of the bolt, to the lock, and through the lock, to the locking surface in the receiver. During this period of high pressure, the lock is fixed in position by adhesion of its surfaces and moves to clear the locking surface in the receiver only after the high pressure has subsided. The angle of the lock is so chosen that, the moment it is moved clear of the locking surfaces, there is sufficient pressure left in the chamber to force the bolt to the rear, extract the cartridge and compress the recoil spring."

The Thompson semi-automatic shoulder rifle (not to be compared with the sub-machine gun) is an excellent example of a retarded blow-back, using military rifle ammunition. It is based upon an interesting principle discovered by Commander Blish of the Navy. There is some controversy as to this "screw-breech" action. Consider a Springfield rifle with its rotary bolt, having two lugs, the perpendicular faces of which rest, when locked, on the corresponding perpendicular surfaces of the locking abutments in the receiver. Of course, when the rifle is fired this bolt does not rotate. Suppose, however, we beveled the surfaces, so that the lugs had "pitch," like the threads on a common screw. In a word, with the correct amount of bevel or "pitch" on its lugs, the Springfield bolt would rotate under pressure upon its head.

According to the "Blish" theory, the bolt does not rotate during the interval of high pressure. Based upon experiments, I respectfully disagree. I submit that the bolt rotates as soon as the pressure is applied. However, academic arguments in this direction are fruitless, for the reason that in the Thompson rifle it is necessary to lubricate the shells. Thus, irrespective of when the bolt begins to rotate, the fact remains that it rotates before the pressure is sufficiently reduced to relieve the cartridge case of "wall friction." With the reader's permission, we will keep the subjects of "lubrication" and "wall-friction" in mind for separate discussion below.

Meanwhile, we can consider the Pedersen semi-automatic rifle, also of the retarded blow-back type. Briefly, the breech-block consists of two sections, the rear face of the forward section being in contact with the front face of the rear section. These faces are carefully shaped to roll upon each other, and are set just above the line of thrust. When pressure is exerted on the head of the breech-block, these surfaces retard the rearward movement of the forward section. As the pressure drops, the entire breech-block "rises in the middle," thus retracting the forward section. The pressure originally is placed at a mechanical disadvantage. By the time the pressure has dropped to a safe limit, the surfaces of the block have rotated on each other so far that the residual pressure obtains a corresponding mechanical advantage.

The Schwarzlose machine gun works on a somewhat similar principle, which may be best compared to a piston, connecting rod, and crank shaft. The breech-block, of course, is in the position of the piston. If these parts were put on "dead center," the "blow-back" on the block could not actuate the mechanism. But when the crank is put slightly away from "dead center," the pressure operates at a mechanical disadvantage during the first part of the travel, and at a corresponding advantage during the last. In other words, the breech-block is delayed until the pressure has dropped to a safe point. On the Schwarzlose the breech-block is quite heavy, and is backed up by a strong spring. "Residual pressure," of course, is utilized for retraction.

The Schwarzlose mechanism is much too heavy for a rifle. The Thompson and Pedersen rifles are the most practical of the retarded blow-backs. The mechanism in the Thompson sub-machine gun is not suitable for high-pressure ammunition; neither is the "straight blow-back" of the .401 Winchester rifle. The Thompson and Pedersen rifles function satisfactorily, and are not unduly complicated. Why not use them? The answer will be found below.

Lubrication of the cartridge cases is mandatory in the Thompson, Pedersen, and Schwarzlose. The first uses oil pads in the magazine, the second wax on the cartridge cases, and the third an oil pump to squirt lubricant into the chamber.

Two questions are raised here, the first of which involves a discussion of cartridge cases under pressure.

(1) Why is lubrication of the cartridges necessary on the retarded blow-backs?

(2) Why is lubrication disadvantageous in a military or sporting rifle?

In answer to the first question, let us consider a .30-06 cartridge under pressure in a 1903 Springfield. When the powder is ignited, the expanding gas forces the bullet forward, thrusts the brass case against the chamber walls, and thrusts the base of the shell with great force against the bolt-head. The cartridge case is thin at the neck, but thick at the base. The brass tends, therefore, to adhere to the walls of the chamber at the neck and shoulders, while at the base it is comparatively free. Therefore, the rear end stretches back against the bolt-head. If the distance from the shoulder of the chamber to the face of the bolt is not less than 1.940 inches nor greater than 1.946 inches, the weapon is said to be correctly "headspaced." All service rifles should readily accept a 1.940 inch gauge. The bolt should close snugly on a 1.946 inch gauge. Rifles which will accept gauges in excess of 1.946 inches are unfit for firing. Why? Because the brass case is likely to stretch beyond its limits, and rupture about one-half inch from the extracting cannelure. That portion of the case in front of the "half-inch mark" adheres to the walls; the rear portion moves back. The tendency of the case to adhere to the chamber is referred to as "wall-friction." This friction acts in aid of the locking lugs. For this reason shooters are cautioned not to oil their chambers, for to do so tends to develop "hammering on the lugs of a bolt-action repeating rifle.

Now, having the above observations in mind, suppose the bolt-head on a Springfield moved from ten to fifteen thousandths of an inch before the pressure dropped to about 10,000 lbs. per sq. in. plus or minus. Obviously, the case *might* rupture. Suppose the case did not rupsure. Then the primer *might* blow out. Primers can-

not remain in their pockets under even medium pressure without some support from the bolt-head. But suppose the pressure is relatively low, say about 15,000 to 20,000 lbs. per sq. in., when the bolt begins to move back. Now the shell sticks stubbornly to the chamber, the extractor claw on the bolt "yanks" at the head. The claw is broken, or the cannelure is ripped off, or the bolt is "stalled."

There is the reason for the difficulty with retarded blow-backs, such as those described above. The breech-block of the Thompson, Pedersen, Schwarzlose, and others actually moves *too soon*. By construction they cannot operate unless the breech-block moves shortly after the ignition of the cartridge. Lubrication of the cartridge cases reduces wall-friction and thus the cases can move slightly under pressure without rupturing, or blowing primers.

The above problem is not encountered in low pressure cartridges, or in cartridges which have relatively thick brass cases in proportion to their maximum pressure. Thus, the .45 Colt automatic pistol cartridge, *having no bottle-neck, no taper,* a very rugged brass case, a comparatively small obturating surface at the "mouth," and a maximum pressure of 15,000 lbs. per sq. in., can move in the chamber under pressure without much difficulty. Compare these characteristics with those of the .22, the .351 and .401 Winchester. Consider the action of the Thompson sub-machine gun cal. .45 A.C.P. in this connection.

Residual pressure alone, when employed for retraction, raises very much the same difficulty with high-pressure ammunition. If residual pressure could be very accurately "timed," however, it might be employed, but not in a mechanism which depends upon an initial movement of the breech-block in excess of the limits of headspace.

For the above reasons, in particular, one finds the design of a pistol or low-powered auto-loading rifle comparatively simple.

(2) In answer to the second question: consider the manufacture of .30-06 cartridges with wax or graphite on the cases. Suppose the shells are dropped in sand or dirt; suppose the lubricant wears off; suppose the factory forgets the lubricant in the rush of war-time production; suppose the lubricant melts in the hot sun of the tropics, or hardens in an arctic climate. Or suppose you forget to oil your oil-pads, or your oil pump runs out of oil.

Then consider the results to be expected in the light of statements made in the answer to the first question. The conclusion is unescapable. The Ordnance Department, U. S. Army, finally rejected both the Thompson and Pedersen semi-automatic rifles. The Schwarzlose machine gun is used by the Austrian army. It is a monstrous "machine," and has ample room for a reliable oil pump. None of these weapons could be considered "ideal." Space prohibits a consideration of other less prominent and less successful weapons of this class. The patent office is full of them.

Those interested in the possibility of "remodeling" a Springfield may find the following of interest:

Bevel the lugs of a Springfield bolt slightly. Insert a T-shaped, slidable bolt head in the bolt. Cut off the bolt at the back of the "third lug." Insert an actuator, having a camming arm protruding through a cam slot in the bolt. Provide a track or slide for the camming arm. Allow the bolt head to move one-tenth inch under pressure against the actuator. Connect the actuator to a mainspring. Provide a hammer and firing pin. LUBRICATE the shells. When fired, the case moves back on the movable bolt-head, which imparts a momentum to the actuator, which, in turn, cams the bolt, which, in turn, is retracted primarily by residual pressure. Do not be alarmed to find that the empty case is swollen badly at the base and at the neck. You do not want to re-load the cases. Neither do you want to waste any time with such a mechanism, even though it can actually eject empty cases. (See also ARMY ORDNANCE, Sept.-Oct., 1936, "What Price Automatic," Part I, by the writer.)

Primer-actuated mechanisms are not new. Some patents date back to the first of the century, in company with the bulk of successful automatic weapons. Mr. John C. Garand, of Springfield Armory, built a very excellent weapon of this type, wherein the primer was allowed to move several hundredths of an inch against a special firing pin, which in turn imparted sufficient energy to the actuator to unlock and retract the breech-block, aided, in part, perhaps, by residual pressure, though not wholly dependent upon it. There is a remote similarity between this design and that of the "movable bolt head" described above. The fact that both mechanisms required less movement of their primer or bolt-head, respectively, when loaded with war-time model 1906 ammunition, as compared with the new .30 Mark I, may be of interest to "powder students." The tendency of the pressure to "push" rather than to "hit" the breech-block is more pronounced in the Mark I ammunition.

For the above reason, among others, Mr. Garand turned his energy toward gas-actuation, with commendable results. One critic disposed of "primer set-backs" as follows:

> "For years we've been trying to keep the confounded things in their pockets, and now you cook up a contraption to move them out!"

And so we pass suddenly to a discussion of recoil-actuated weapons, a fertile field, indeed, for there are over four hundred patents in this class for sale in the U. S. Patent Office, at ten cents per copy.

Recoil-actuated weapons are divided into the "long-recoil" and the "short-recoil" types. They have one feature in common. The barrels of these weapons are "slidably mounted" in the frame or receiver, and are permitted to recoil from one-eighth to some five inches, depending upon the particular characteristics of the design.

This article is not an attempt to write an encyclopedia, and accordingly the discussion shall be limited to those mechanisms which have proven successful. I venture to say that a very large percentage of the patents on automatic arms are merely verbose descriptions of a combination of gadgets which might better have been described as egg-beaters, or locks for safes, on the

ground that the "yoke" was on the inventors, and that no one could ever hope to find the combination. An instrument more effective than a search warrant would be required to unearth an application of the Principle of Simplicity in many of these patents.

Having unburdened ourselves in this ungracious fashion, let us consider the "long-recoil" system.

Paul Mauser, the world-renowned inventor of the "Mauser" bolt action, Mauser pistol, and other weapons, filed patents on a "long-recoil" rifle prior to 1900. John Browning, equally famous as an inventor of numerous automatic weapons, also filed patents at this time. The result of Browning's efforts may be found by examining the Model 8 Remington auto-loading rifle, in calibers .25, .30 and .35 Remington, also the Browning and the Remington auto-loading shotguns. The Mauser automatic apparently was unsuitable for military purposes, and the same may be said of the Model 8 Remington.

In brief, the set-up is as follows:

The breech-block or bolt is locked to the barrel, both of which are free to slide rearward in the frame about four inches plus or minus. When the piece is fired, the "kick" or recoil of the explosion is utilized to drive the bolt and barrel to the rear of the receiver, during which interval the bullet leaves the muzzle and the pressure drops to zero. This movement compresses a heavy barrel-return spring, as well as the mainspring behind the bolt, and cocks the hammer. Then the bolt is released from the barrel, which moves back into battery, leaving the bolt in the rear, engaged to a "latch." During this movement, the shell is extracted by the forward travel of the barrel away from the bolt. The shell is ejected, and then the bolt is released, moving forward, loading the next round, and locking to the barrel.

This system works very well in the above-named commercial weapons, but it is not desirable for military purposes nor capable of satisfactory performance with higher pressures, not to mention longer shells.

For example, the tube surrounding the Remington Model 8 barrel retains heat, a bad feature in a military arm. Moreover, the barrel movement is excessive and does not improve the accuracy in view of the fact that both sights are placed on the tube within which the barrel travels. Various disadvantages are experienced with the barrel spring, which is affected by heat from the barrel. The action is rather complex, and includes quite a number of "gadgets."

The fact that this mechanism has been available for thirty years without being adopted by any military organization is a sufficient commentary. However, if you want to buy a good auto-loader for hunting, you will find it quite satisfactory. You can make your choice easily. The .401 or .351 Winchester is the only other "semi-automatic rifle" you can buy, except a .22.

The solution which we seek is not to be found here. Let us then pass to the short-recoil systems.

Short-recoil mechanisms are numerous, and comparatively successful. Consider the "heavy Browning," model of 1917; the Maxim and Madsen machine guns; the Colt; the Luger, and Mauser automatic pistols.

Hiram S. Maxim was one of the pioneers in the "short-recoil" field. His patents date back to the "eighties." The "Maxim" was instrumental in changing a lot of political geography in Europe and Africa. The so-called "Vickers" is built on the Maxim design. The Germans used several models of this machine gun in the world war. The so-called "pom-pom" is a "one-pounder" Maxim automatic cannon, belt-fed.

John Browning, of Ogden, Utah, contributed a "gas" machine gun originally, as well as the design of the famous Winchester model of 1886, and other repeaters. More especially he invented the Colt .45 automatic pistol, and other "short-recoil" pistols of similar design. He later invented the familiar "Browning Machine Gun," the standard weapon in our service since 1917. His invention of the Remington auto-loading rifle and shotgun, and the Browning shotgun was mentioned above in connection with "long-recoil" mechanisms.

Fundamentally, the action of the Maxim and Browning machine guns is the same. Both weapons are quite complicated, and their mechanism is not adaptable to a shoulder rifle.

Briefly, the barrel is locked to the breech-block. Barrel and breech-block recoil upwards of one-half inch. (Maxim recoils three-quarters and Browning five-eighths of one inch.) The breech-block is then separated from the barrel, the momentum of which is imparted to the breech-block through an accelerating lever or similar means. The movement of the barrel is checked by thus absorbing its recoil energy, which contributes to the momentum derived by the breech-block during the initial recoil. It will be noted that with this type the barrel and breech-block are comparatively free to recoil. If the barrel were not "slowed down" gradually, the shock of stopping it sharply might be undesirable in a high-powered weapon.

But with the conventional pistol cartridge, including the .45 A.C.P., an accelerating means is not essential. Thus, with the .45 Colt service pistol, the barrel and "slide," or breech-block, recoil together about one-eighth of an inch, during which interval the pressure drops to a safe limit. Then the barrel is disengaged from the slide by means of the "link," which swings the back end of the barrel downward sufficiently to disengage its lugs from the slots in the slide. The momentum of the slide derived from the initial recoil, plus a certain amount of residual pressure, acting with comparative ease on this type of cartridge case, is more than adequate to extract the shell, compress the spring, cock the hammer, and accomplish ejection.

Except for the fact that the Luger pistol has a "toggle" block instead of a "slide," it is not unlike the Colt in its basic principle. The barrel and block recoil a quarter of an inch, when the "toggle" is caused to break open by contact of the "center-pin" of the toggle with a "slope" in the frame.

The Mauser pistol is another of the short-recoil type, the breech-block being disengaged from the barrel extension by means of a cam acting upon the locking bolt. None of these actions are adequate or adaptable to the requirements of a high-powered semi-automatic rifle, if for no other reason than lack of locking strength.

Before passing on from the "short-recoil" class, we might try out an idea, based in part upon the foregoing

discussion. Our inventive minds might work something like this:

(1) The Maxim and Browning guns require a mechanism to retard the hard blow of their barrels upon reaching the rear of their travel. Friction rings are provided on Remington and Browning auto-loaders. Therefore, the slidable barrel must have a lot of power.

(2) In croquet, we can hit our own ball, which, in contact with the ball of our opponent, will transmit the blow of our mallet, and drive our opponent's ball away. Or we can hit our own ball directly.

(3) Suppose we arranged an actuator in a modified, rotary bolt, so that when the actuator moved rearward, it would unlock the bolt. Then suppose we allowed a recoiling barrel to move and strike either (a) a block in contact with the actuator, or (b) the actuator itself. Would one of these combinations provide sufficient power to unlock the bolt and retract it, or merely to unlock the bolt in time for residual pressure to be utilized?

Answer: No! Combination 3 (a) provides barely enough power to compress a spring about five pounds, without effecting any unlocking whatever. Combination 3 (b) will effect unlocking of the bolt and will then compress the spring about two or three inches. It is virtually impossible to attempt to "time" this arrangement for residual pressure.

What shall we do next? Well, some use aspirin, and some bromide, and some rum. Such is the routine of many "crazy inventors." Thus, we shall conclude our consideration of the various general types of actuation, and pass on to a discussion of certain other matters which should be carefully kept in mind when one is considering the problem of designing or adopting an automatic weapon, more especially a semi-automatic rifle.

PART II

■ Developments in all types of firearms have been extremely few during the past twenty years. Ammunition, of course, has been improved. But the "pump gun," the conventional bolt action, the well-known lever action, the "heavy" machine gun, center-fire ammunition, the Spitzer bullet, smokeless powder, and many other contributions date back into the nineteenth century. Metallurgists have given the gun-maker far better alloys, capable of withstanding tremendous pressures, and as a result of their research, existing firearms, in general, have been refined. For example, modern alloys of nickel, chromium, and tungsten steel have made possible the use of ultra-high pressures in our rifles. Stainless steels have been used in the manufacture of improved barrels.

With reference, in particular, to automatic weapons, it is often stated that there is nothing new in design, and that all of the combinations have been tried out. To such statements I respectfully take violent exception.

Consider the composition of music, for example. There are seven notes, A through G inclusive, and a definite number of octaves. Then, too, there are definite numbers of chords. Nevertheless, new songs are composed every day. They are not the same songs that were composed yesterday, however much we may classify them.

When we consider automatic firearms, it might be argued that once a gas-actuated mechanism was produced, no design could thereafter be new which utilized gas for its operating power; or that because Maxim originally introduced a recoiling barrel, no design incorporating such a feature could be deemed new or novel. All the combinations of notes have not been put together in music; and some *combinations* for the actuation of automatic weapons have yet to be announced.

One of the worst faults in human nature is the tendency to lose sight of the Objective. Another, equally bad, is a failure to determine at the outset just what is the objective. In our consideration of automatic weapons, we have concentrated on the semi-automatic rifle. Why? Because that is our objective. If we succeeded in "cooking up" an entirely new and novel "machine" of which no one ever dreamt before, would that amount to the attainment of our objective?

To save time in the future, let us analyze the restrictions and inform ourselves of the requirements which must be met and considered in order to achieve our objective in the field of automatic weapons.

Machine guns and semi-automatic rifles have many features in common. We should keep the fact of their basic similarity in mind. In truth, their only mechanical differences are these: one is generally fired from a tripod or mount, "full automatic," having belt or drum feed, and air or water cooling. The other is fired from the shoulder, "semi-automatic," having magazine feed, and no artificial cooling. Because of their tactical employment machine guns can weigh from twenty to fifty pounds. Because they must be carried by individuals and fired from the shoulder, rifles must weigh under eleven pounds.

Generally speaking, a semi-automatic rifle can never be designed from a machine gun, whereas a machine gun can often be designed from a semi-automatic rifle.

Machine gun units in the service are obliged to put up with cumbersome weapons because inventors have not been able to produce lighter mechanisms. There is an increasing demand for "light-weight" machine guns. If we can design a semi-automatic rifle, we can undoubtedly use that mechanism as the basis for the design of a light machine gun. Military experts are constantly seeking to increase "Mobility." Weight decreases mobility. At the same time they seek to increase "fire-power." Thus there is presented the problem of reconciling mobility with fire-power, which to date has been difficult due to the weight of machine guns and the lack of automatic shoulder rifles.

Because the readers are interested in all military problems, we might point out that the service desires to standardize weapons as far as possible. Suppose the army is equipped with a semi-automatic rifle having the same basic mechanism as that of the machine gun. The problem of training the enlisted personnel to operate their automatic weapons would be greatly simplified.

Therefore, we may confidently conclude that the design of a simple automatic mechanism suitable in the

form of a shoulder rifle would also prove adaptable to machine guns, and such a mechanism is our objective, both in the military and sporting field.

Ammunition must be considered in connection with the design of automatic weapons. The reader is reminded of our discussion in the first part of this article relative to the characteristics of high and low-powered cartridges in the various mechanisms.

For some years following the world war the Ordnance Department, U. S. Army, considered the .276 cartridge, for the reason that it was smaller, weighed less, and could be carried in greater quantities by the infantry. The Pedersen rifle, for example, was built in this caliber, as well as the first gas-actuated Garand. However, the necessity for interchangeability of ammunition led to the retention of the .30 Mark I cartridge for which machine guns are calibered.

With reference to our discussion in Part One it is clear that any mechanism which will function with .30 Mark I ammunition ought to function with any less powerful loads. In fact, the .30 Mark I cartridge is about the meanest type of ammunition you can find for adaptation in automatic arms. For example, the pressure is about 50,000 pounds per sq. in. The headspace must be carefully adjusted. Due to the pressure every precaution must be taken to prevent blown-out primers, and variations in the annealing of the brass cases may have some effect upon the action of the weapon. In general, any difficulties encountered in the Springfield with this ammunition are likely to be accentuated in an automatic, especially during periods of hasty war-time manufacture.

The designer might be tempted to introduce some form of special "automatic" cartridge, but his efforts would be met with extreme hostility. Great quantities of "standard" ammunition are on hand; both government and commercial plants are tooled up for existing specifications. In short, the gun must fit the ammunition, not the ammunition the gun. We must not lose sight of the objective. We must bear in mind that the semi-automatic rifle is expected to satisfy multiple requirements.

Manufacturing requirements are of paramount importance in this connection. Many inventors have ignored that problem in designing their weapons. Any inventor's scheme which would be difficult to produce in an average arms plant ought to be discarded without further experimentation.

We must ask ourselves the following questions:

(1) How many parts are required in our rifle?

(2) How many of the parts are more complicated to manufacture than a normal rifle barrel?

(3) Can we use a normal military or sporting rifle barrel as now manufactured, with minor changes, or must we have a radically different design?

(4) Do we require any costly metals of which there is a limited supply, or can we use the conventional steel alloys for all of our parts?

(5) Are there likely to be any manufacturing operations beyond the present comprehension of the average skilled machinist or gun-maker?

(6) How will the manufacturing operations necessary for the automatic compare with those experienced in the production of a conventional bolt-action military or sporting rifle?

(7) Must the fittings and tolerances be closer than those of the conventional rifle?

(8) How much will it cost to "tool up" for this rifle?

(9) How much will the complete weapon cost to produce compared with a Springfield or similar rifle?

These questions are inevitably asked, often ignored, and rarely answered.

Component parts of the semi-automatic rifle must be carefully considered. Some of them we have already referred to, more particularly the breech-block or bolt.

The barrel, so far as possible, should be conventional. There is no great objection to slidable mounting, provided the movement of the barrel does not exceed one-half of an inch and the barrel is properly mounted. The question of accuracy will be discussed below.

If possible, the barrel should be readily dismountable so that the chamber and tube can be cleaned, and so that the barrel may be replaced in the field when worn or over-heated.

The barrel on a "gas" rifle mentioned in Part One can only be cleaned from the muzzle and requires a special chamber brush.

The barrel of a semi-automatic rifle should be exposed to air as far as possible so as to facilitate the radiation of heat and consequent cooling of the barrel.

The extractor is one of the most important parts of any rifle, more especially an automatic, and is invariably subjected to harsh treatment, in that it is forced to "yank" at the sticky case during the interval when, on many guns, the brass is pressed against the walls of the chamber by the residual pressure. On the Springfield we find an extracting cam which aids in loosening the tapered case. On many automatics it is impossible to make such provision. However, the extractor is subjected to great strain on any automatic for a more fundamental reason. Sufficient power must be provided to carry the breech-block some five inches against a heavy spring, at the end of which movement the breech-block must not have been retarded so much that sufficient ejection power is lacking. Thus the breech-block must start off at high speed, and in consequence the extractor is subjected to a severe yank. If this sudden movement does not break the extractor, it is likely to rip off the brass extracting cannelure.

For the above reasons the extractor should be extremely rugged. Moreover, simple means for dismounting and replacing a broken part should be made available. One should never presume to have designed an unbreakable extractor for an automatic weapon. If possible it should be removable without dismounting the breech-block.

The ejector should be readily dismountable, and installed in the frame or receiver. On some rifles it is mounted in the head of the breech-block, a feature of design to which the writer is not partial.

The firing mechanism should be as simple as possible, but the semi-automatic rifle is, in this respect, more complicated than the machine gun, in that the sear must "slip" with each movement of the trigger, thus

necessitating a distinct release and squeeze of the trigger for each discharge. In general, it is preferable to use a hammer mechanism, having a separate firing pin, rather than designs of a type similar to the Springfield "striker." The fact that a "hammer" is used on the Colt .22, Colt .45, Remington auto-loading rifle and shotgun, Browning auto-loading shotgun, Winchester self-loading rifle, and many others, is ample evidence that this method is more desirable. The most popular "semi-automatic" sear is that found in an early patent of John Browning, and incorporated in both Remington auto-loaders, as well as the Browning shotgun.

Safety features should be considered in designing the firing mechanism. Under no circumstances should it be possible to discharge the automatic until the breech is fully locked. This feature is essential in any rifle. For example, when the bolt of the Springfield is partially locked, the release of the striker causes the energy of th striker spring to be expended in closing the bolt. Moreover, until the bolt is closed, the striker can not hit the primer. An examination of the cocking cam will disclose the reason. But such a feature is more important in an automatic because the operator does not close the bolt by hand. If, for any number of reasons, the breech-block of the automatic failed to lock, the operator would not be aware of that fact, and might discharge the weapon with disastrous consequences. I can not emphasize this feature too strongly. It should be incorporated as an integral part of the design.

Mainsprings are a source of some difficulty in automatic shoulder weapons. Like all other parts, the spring should be utterly simple. The ordinary coil spring, mounted in a tube, and located in the stock, has much to recommend it. Several patents disclose novel devices, and the Lewis machine gun illustrates a unique method of storing up energy in a spring-actuated cog-wheel. Such weapons as the Browning shotgun, and Remington auto-loaders, use a simple coil spring in the stock, which is contacted with the breech-block by means of a strut. The location of the mainspring under the barrel has an advantage in that it permits a straight pull, all movements being parallel. However, an exposed connecting rod is generally needed for such springs, which must extend from the breech-block to the further end of the spring. On the other hand, the stock-mounted spring tends to thrust the breech-block against the top of the receiver. The strut must move in an arc, and there is a slight tendency with such an arrangement to cause the parts to bind. Nevertheless, the spring and strut are not exposed, and the average rifle stock provides ample room for the housing. But for the necessity of having an undesirably long receiver, it would be highly preferable to mount the spring directly in line behind the breech-block.

Receivers on some semi-automatic rifles are extremely long, and it is commonly alleged that long receivers give bad balance. The use of a rotary bolt in an automatic rifle of .30-06 caliber raises some difficulty in the design of a compact receiver. Breech-blocks such as that of the Pedersen rifle are ideal in this respect. But the rotary bolt certainly has its advantages in an automatic. Suppose, for the sake of argument, we used a modified Springfield bolt. The bolt must be long enough to cover the magazine, plus the lugs and bolt head. That makes the bolt about four or five inches long. The operator can not duck his head when he pulls the trigger, so the bolt must be enclosed. Thus the receiver must be nine or ten inches long. We might contrive to locate the lugs somewhere within the limits of the magazine, and thus reduce the bolt to the length of the cartridge used in the magazine. That has been done. However, when we begin to cut off the last fraction of an inch from the length of a receiver, we may get into plenty of trouble. Perhaps the price we should have to pay for such a gain might be greater than the gain would be worth.

In the last analysis there are two reasons for shortening receivers: one to get all the weight in the breech centered in a short space so as to improve the balance and handling qualities of the weapon; the other to cut down total weight. However, when we examine the Springfield and measure the distance from the front end of the receiver to the rear end of the bolt in its cocked position, we find that by adding about two more inches we can accommodate an automatic rotary bolt without any appreciable difficulty. The resulting receiver would have an ejection port sufficiently distant from the tang, so that a left-handed shooter would not be discomforted when the shells were ejected. Incidentally, no more weapons should be designed which can not be readily operated without modification on either the right or the left shoulder. Many men are left-handed. Their left eye is their master eye. The gun should be fitted to the man, not the man to the gun. With the exception that the receiver should not be so long that the operator must buy a railroad ticket to get from the tang to the chamber, the agitation over "long receivers" is of minor importance.

The magazine need not be necessarily different from the conventional types in common use. However, there are two points worthy of note in this connection.

First of all, it is submitted that the magazine should be detachable, of a type similar to that of the Colt pistol, self-loading Winchester, or Browning machine rifle. Such a magazine permits instant unloading. In case of a jam the operator need not fumble around with a gun full of cartridges. Loading is easier with a magazine than with a clip. Provided the ejection is from the side, which it should be, the detachable box magazine permits the mounting of a telescope close to the receiver.

The second point relates to the number of rounds in the magazine, and, incidentally, to the question of cooling and ammunition supply. The semi-automatic rifle is designed to permit the hunter, whether he be in the pursuit of animals or men, to discharge a rapid succession of *aimed* shots. The rifleman so armed is not a "walking machine gun." The hunter wants to get in a second and third shot because too often his quarry does not drop or is not, at least, vitally wounded with the first. Any honest deer hunter will admit that a second and often a third shot is needed to put the animal down. The automatic is merely a logical improvement

over the repeater or double gun. The soldier, attacked by two or three men from an enemy squad, can be twice as efficient with a semi-automatic. But from five to eight shots in rapid succession are enough. The semi-automatic is not a bullet squirter. Machine guns are used for barrages and the sweeping of sectors. The rifleman must not burn up his ammunition. The interval necessary to replace an empty magazine allows a cooling period for the barrel. In fact, it cools off the rifleman as well. Pumping out bullets is a great temptation when under stress. Consequently, the magazine need not hold more than half a dozen rounds, and for the same reason it is hardly necessary to provide a device for holding the breech-block open after the magazine has been emptied, a feature which is found, for example, in the Colt service pistol. The amount of time taken to load the chamber by pulling back the operating handle is quite negligible. Unless these points are kept in mind, each semi-automatic rifleman must be given a water-cooled barrel, and a large "safari" to transport his ammunition.

Component parts of machine guns are generally similar to those of the semi-automatic rifle, except for the mount, the firing mechanism, and the feed.

The most common type of mount found on heavy guns is the tripod, having traversing and elevating wheels which permit adjustment in "mils" or minutes of angle. The "mil" system has found great favor in artillery circles for computing the deflection. There are 6,400 mils in a circle. One mil subtends one yard at one thousand yards. Operated from such a mount, the machine gun can provide indirect fire, and with the new Mark I ammunition our guns can lay down effective barrages at ranges up to 2,500-3,000 yards.

The other type of common mount, used more frequently on the lighter weapons, is the bipod, which, combined with a special butt, permits the gun to be "fixed." No provision is made for deflection or elevation, the gun being aimed like a rifle. The tripod mount on the heavy Browning, and the bipod on the Lewis, are familiar illustrations of these mounts.

The firing mechanism of the machine gun may be less complicated than that of the rifle, because the former can be cocked when the breech-block is at the rear of the receiver.

The closing and locking movement of the breech-block can be used to provide sufficient energy to explode the primer. A "slip-sear" is not used, because when the trigger is pressed the gun must fire continuously without requiring a separate pull for each shot. Movement of the breech-block after pulling the trigger tends to affect the aim of a rifle, and this is a fault found in firing the Browning machine rifle and Thompson sub-machine gun semi-automatically. Due to the excessive heating of the machine gun barrel, cartridges which are positioned in the chamber for any appreciable interval may explode without being acted upon by the firing pin. Thus it is desirable to "cock" the machine gun with the breech-block open to avoid the possibility of accidental discharge.

Feeding of cartridges is a difficult problem in machine guns. The Maxim and Browning use belts, the Hotchkiss a metal "strip," the Lewis a drum, the B.A.R. a box magazine. These are merely a few representative types of feed. In a word, the question narrows down to the belt versus the box magazine when one considers "light" machine guns. For a number of reasons the drum and "strip" are not so desirable.

The belt permits a large number of rounds to be fed without reloading, but complicates the operating mechanism considerably. The magazine, holding from fifteen to thirty rounds, permits a simple operating mechanism, but of course must be replaced after two or three short bursts.

The use of a water-cooling device on a light machine gun is hardly practicable. To be "light," the gun must have an air-cooled barrel. The use of a belt in such a weapon will undoubtedlly cause over-heating. The short interval required to change magazines permits the barrel to cool appreciably.

On the whole this problem of machine gun feed is most aggravating. Further discussion of the subject is not within the scope of this article.

Rate of fire is a matter of extreme importance in connection with our consideration of the objective, and concerns all classes of automatic weapons for that reason.

For example, the Browning "heavy" machine gun, model of 1917, fires at a "cyclic rate" of from 300-500 rounds per minute. The Thompson sub-machine gun, commercial model, fires about 800 per minute; Marine Corps model about 600 per minute. Aviation models of the heavy Browning can fire as fast as 1,200 rounds per minute. The present demand for aviation guns is somewhat extreme, a cyclic rate in excess of 2,000 rounds per minute. It is respectfully submitted that no practical gun, using .30 Mark I ammunition, can be designed to fire at such a rate, 1,500 per minute being the absolute maximum. When fired at a rate in excess of 1,000-1,200 per minute the machine gun has very much the effect of a shotgun. Due to the great speed of modern airplanes, the gunner is "on the target" such a short time that he requires a very high rate of fire to obtain an adequate concentration of the burst on the enemy plane. Even ground targets are becoming more mobile, and the infantry requirement is therefore similar.

If a gun firing Mark I ammunition were operated at a rate of 1,200 rounds per minute, the bullets would be roughly fifty yards apart along the trajectory. Without attempting any mathematical calculations, it is very obvious that a gun firing at a rate in excess of 1,000-1,200 rounds per minute must unlock its breech-block during the "interval of residual pressure." If the pressure is too high the shells will not extract for reasons stated previously in this article. If we must furnish a mechanism capable of firing at such a rate, we are bound to use residual pressure for retraction whether we want to or not. Of course we can ignore this force and use other power for retraction. Nevertheless, residual pressure will be operative.

The amount of heat generated by such a rate of fire will necessitate more frequent cooling intervals on ground guns. This is another reason for preferring the

box magazine to the belt in adopting a system of feed for the light, high-speed machine gun.

"However far we soar in fancy's flight,
We must return and find a place to light."

Accuracy is a virtue which the average repeating rifle now possesses. Few riflemen are sufficiently expert to uncover inaccuracies in a modern Springfield or similar rifle. Our service ammunition is of the highest quality. Our barrels are superb. What about the automatic weapon? Will the semi-automatic rifle necessarily prove to be less accurate than the Springfield?

Probably not. Of course in a weapon which utilizes gas taken from a port in the barrel, a small amount of pressure may be taken from the propelling force, with a consequent loss in velocity. The Garand rifle, however, is reported to furnish fully as good groups and high velocities as the Springfield.

Fixed-barrel rifles, utilizing residual pressure for retraction, will not show any loss of accuracy or velocity. But what about weapons in the recoiling-barrel class? The velocity of .30 Mark I ammunition in the heavy Browning is practically the same as that in the Springfield. The barrel-mount is not particularly snug on this machine gun, yet it is not inaccurate.

Rifles which have their sights on a housing within which the barrel slides may vary as to sight settings. The sights might not be exactly parallel to the axis of the bore. It is believed preferable to have the front sight fixed to the barrel for this reason, and the Luger pistol may be said to be superior to the Colt .45 in this respect.

The writer witnessed the firing of a cal. .30 Mark I semi-automatic rifle, having a 1903 Springfield barrel mounted slidably in a nine-inch housing, and a bearing on two bushings, one at the chamber, the other nine inches from the chamber. This barrel recoiled one-quarter of an inch, and appeared to have an appreciable side-play in the mount. The weapon had never been adjusted. Using a Lyman 48 sight, the operator, not a particularly expert marksman, "sighted in" this rifle at 300 yards on the "A" target. The first bullet missed the paper at 3 o'clock. The next two came into the four-ring. One adjustment was made for elevation, and the next round was in the bull.

Thereafter, firing at 200 yards for the most part, the operator made six consecutive bulls, prone. He then fired three bursts of three each, scoring about six "bulls" and three "fours" in four or five seconds per string. Offhand he fired similarly, scoring about three "bulls" and six "fours," four or five seconds per string. Inasmuch as the operator never scored above a "forty-six," slow fire, offhand, at 200 yards, with a Springfield, this performance indicated that the slidable barrel did not affect the accuracy of the weapon unduly.

It was observed that the wind-gauge was set considerably to the left, showing that the barrel tended to jump to the right. This may have been due to the loose fit of the barrel, but it jumped exactly the same way with each shot.

In the last analysis, every rifle barrel is allowed to jump and vibrate. Provided the jump or movement is uniform, the amount, within reasonable limits, should not affect the accuracy.

It has been suggested that a recoiling barrel reduces the velocity. However, every barrel recoils more or less on the shooter's shoulder. The variation in recoil would be measurable merely by the difference in weight between a complete rifle and the recoiling parts of the automatic.

For the above reasons it is concluded that where a standard type of ammunition is used in both weapons, the semi-automatic will prove quite as accurate as the conventional repeater. To compare a .30-06 Springfield with a .401 or .35 cartridge fired from one of the commercial automatics is manifestly unfair. The B.A.R., due to its moving breech-block, is not at all comparable in this connection. Target shooters will always cling to a single-shot match rifle for fine shooting, slow-fire, but the day will come when military rifle ranges will echo to the roar of rapid fire programs, five-round strings in ten seconds at 200 yards.

Kickless rifles, hairless faces, noiseless nights, and holeless socks have been the goal of mankind for many years. Some of the contrivances submitted to reduce the recoil of shoulder weapons should be exhibited in a zoo.

The question of combining a reduced "kick" and a semi-automatic rifle has puzzled many serious inventors. One unfortunate individual demonstrated a weapon which multiplied the normal kick from fourteen to thirty-odd foot pounds. He later used his model to commit suicide, but the coroner could not determine which end of the gun was responsible for his demise.

In the first part of this article we discussed three basic methods of actuating an automatic. With respect to the question of reduced recoil it is submitted that the use of residual pressure in a retarded blow-back tends to reduce the recoil slightly; that the recoil of gas-actuated weapons, such as the Garand, is substantially equal to that of the corresponding Springfield; that weapons having recoiling barrels tend to produce less recoil or "kick" than any of the other types.

The idea of using the "kick" of a gun to provide operating power occurred to Hiram S. Maxim back in the "eighties." He patented a lever-action rifle equipped with a special butt plate and rod, connecting to the lever, so that when the gun kicked, the stock moved back against the connecting rod, thus causing the lever to be thrust down so as to unlock the breech. A spring caused the lever to be returned to the locked position. Prior to firing the special butt plate was some three or four inches away from the stock of the rifle.

Shortly after that, Maxim patented his short-recoiling machine gun action.

If we use some of the force which ordinarily produces the unpleasant "kick," to actuate the mechanism, we shall necessarily reduce the "kick" by the amount of force used for the automatic operations. In other words, we can reduce the kick by making it perform "work." Thus, we may utilize a force ever-present in all firearms, which might otherwise be wasted.

We might be led to conclude that the "recoiling-barrel" system would necessarily reduce the kick.

However, .30-06 (Mark I) barrels which are allowed to move freely a fraction of an inch will develop an excessive pounding on the frame or receiver. Some means must be provided to slow down the movement, a point which we mentioned in Part One of this article.

One inventor developed a "kickless" machine gun of an ingenious design. The practicability of such a mechanism I leave to the reader's judgment. This weapon was equipped with a gas-piston, which, when the cartridge was fired, moved toward the muzzle, thereby compressing a heavy spring. This movement, being effective during the interval of critical pressure, caused the kick to be reduced materially. The heavy spring then expanded, and furnished sufficient power to unlock and retract the breech-block, extracting and ejecting the shell. Moreover, the expansion of this heavy spring effected a compression of the light counter-recoil spring. The actuating spring, having completed its work, was disconnected so as to permit the counter-recoil spring to return the breech-block to its forward, locked position.

Again we should ask ourselves whether the price we must pay for some gains is not greater than those gains are worth.

Digressions are in many instances unwelcome. In the course of conversation on a specific subject the tendency of many enthusiastic individuals to go off on tangents is extremely annoying. The great eighteenth century novelist, Henry Fielding, established a dangerous precedent in his voluminous classic, "Tom Jones," by launching forth into learned excursions on the antiquities at the commencement of each chapter.

At this juncture the writer might digress to submit in detail certain worth-while discoveries, based upon experiments actually conducted. However, such disclosures at this stage would be premature. Every inventor should approach his own problems with an unbiased mind. Moreover, this article is not intended for inventors, but for those who must depend in some measure upon the work which inventors have done, or are trying to do.

However much we may extend the scope of our educational facilities, we can never expect to provide an adequate course of instruction on "how to be an inventor," advertisements to the contrary notwithstanding. Eccentricity may often be the father of invention, but necessity will always be the mother. A brief discussion of certain primary factors which inventors should keep in mind may be found in my article "What Price Automatic," Part II, ARMY ORDNANCE, November-December, 1936.

However, there are one or two matters that may be of general interest, which we can disclose by way of this digression.

In the process of testing and improving the function of a semi-automatic rifle, cal. .30 Mark I, it was noted that, due to the action and shape of the firing pin, and due to the variation in annealing, certain fired shells evidenced a distinct "swedging" of the primer around the rim of the firing-pin hole in the bolt-face. In effect, the primers of certain cases had a prominent circumferential ridge around the indentation made by impact of the firing pin. BUT, certain other cases, fired from exactly the same mechanism, bore no such identifying mark.

Moreover, the above rifle, having an excessively large ejector slot in the bolt-face, produced empty cases with "swedging" marks on the perimeter of their bases, whereas certain other cases showed no such marks. The latter cases functioned well in the weapon; the former generally mal-functioned, much to the inventor's disgust.

Frankford Arsenal cartridge cases, Lots 1924 through 1931 (F.A. 24-F.A. 31), more especially Lots 28 and 29, bore no marks of swedging either on the primer or the base. Lots 1933 through 1935 (F.A. 33-F.A. 35) bore such marks distinctly. Reason: it is understood that the later cases were given two more "annealings" than those of the earlier manufacture. A correction in the size of the ejector-slot in the bolt-face of this rifle eliminated all variation in functioning, so that this weapon now operates equally well with all lots, much to the joy of all concerned.

It should be noted that in any rifle having a slightly enlarged firing pin hole, or having a firing pin which does not necessarily remain thrust against the primer during high pressure, the "soft" primers will look entirely different from the "hard" ones. This information was received with much interest by Captain Charles J. Van Amburgh, well-known expert on fire-arms identification, and ballistician in the Department of Public Safety, Massachusetts State Police.

It is obvious, therefore, that criminal investigators might be confused in a situation where two different lots of rifle ammunition were used, since shells from the same gun might be marked differently. It is doubtful whether such a variation would be noticed in pistol or other low-pressure ammunition.

The next point which may be of interest relates to the action of the extractor in a weapon which utilizes residual pressure for retraction. In Part One we discussed the use of this force, and concluded that on low-power weapons, at least, we could take advantage of the tendency of the breech-block to blow back. Cases which are not forced too tightly against the chamber will tend to slide rearward. One might suppose, therefore, that the extractor would not be required for primary extraction, other than to guide the head of the shell upon its withdrawal from the chamber. The fact is, however, that the breech-block, carrying the extractor, jumps away before the shell can loosen. Whatever mathematical calculations may or may not be adduced, the action of the extractor under such circumstances is easily observed. Unless the claw has sufficient bearing on the rim, it will rip through. Without any extractor the shell remains in the chamber, and the breech-block jumps slightly away from it.

The last point can be disposed of briefly. Based on considerable experimentation it is obvious that the seating of primers in Frankford Arsenal Lots 1933 to date is far superior to that of the earlier lots. The experiments upon which this statement is predicated were extremely conclusive, in that the primers of all lots were subjected to abnormal strain. This information is undoubtedly known to many of the readers, as is the fact that the heat-treatment of Frankford Arsenal cases was changed due to the failure of the earlier lots, such as F.A. 29,

to stand up under storage conditions. (I wish to thank Lieut. Colonel W. W. Ashurst, of the Marine Corps, for this last information.)

For the above reasons the "bolt-lift" will be greater on rotary-bolt rifles having abnormal ejector slots or firing-pin holes, or irregularities on the bolt-face, when these softer cases are fired.

MALFUNCTIONS in automatic weapons are a source of great annoyance. The high percentage of jams experienced in machine guns and certain types of pistols gave such firearms an established reputation for unreliability. The ideal automatic mechanism should be incapable of jamming. I venture to predict, however, that no automatic rifle can be made in quantities which will develop better than 95-98 per cent functioning, on the basis of ten thousand rounds. Pistols, such as the .45 Colt automatic, turn in wonderful performances. As stated in other connections, pistol ammunition is much easier to handle.

Consider the average Springfield. Not infrequently when one is firing a string "rapid," a shell sticks and the operator loses time in trying to unlock the bolt. Primers have been known to be excessively hard. Cases have been known to rupture. Variations in the dimensions of the case, thickness of the head or cannelure, and other deformities in a cartridge, are likely to cause difficulty in an automatic chambered for high-pressure loads.

Aviators during the world war inspected their ammunition and loaded their own belt. Factory inspection, especially in war-time, can not be relied upon too much.

The chamber of the automatic must be inspected and cleaned. The most vulnerable part is the extractor. Other parts being well made, the extractor is more often the source of difficulty, for reasons dealt with in another connection. Most malfunctions, not directly attributable to defective ammunition, may be said to originate at the moment of primary extraction. If the brass case can be loosened just a fraction of an inch, it will probably be ejected without any difficulty.

From a practical standpoint those few malfunctions, which necessitate merely a yank on the operating handle to clear the empty cases and reload, are hardly serious. If the weapon is inclined to "break down" every few hundred rounds, the mechanism is not a very ideal substitute for a hand-operated weapon. Over-heating will cause the shells to stick, and jams for this reason are more frequent in machine guns. Most over-heating can be avoided by choosing targets carefully and issuing smaller belts or five-shot magazines to machine gun crews and riflemen respectively.

Last of all, remember that rifles are essentially machines. A drop of oil now and then does no harm. Even fishermen lubricate the working parts of their reels.

IN CONCLUSION the reader is reminded that this subject is rather large, quite capable of filling several volumes. In setting forth the above discussion it has been attempted to answer the sort of questions most generally asked.

Countless other questions can be raised, and perhaps the answers are not so easily forthcoming. After the publication of an article in another magazine, the editor informed the writer that an inquiry had been made by a gentleman who enclosed six dollars and wanted "five dollars' worth of patents," one dollar being for the editor and the writer "for their trouble." The writer was requested directly by several "patent lawyers" to tell them how to obtain a patent on certain automatics. Several "inventors" wanted the writer to help them finance and market their weapons. A couple of old-time military men were afraid that an automatic rifle might not be suitable for the manual of arms, and some, more bloodthirsty, questioned the adaptability of a bayonet, in competition with which they indicated that the "automatic" would be useless.

All of the mechanisms in existence today have *not* been discussed herein for reasons indicated. For about one hundred dollars you can buy all of the patents in the U. S. Patent Office. Most of the more successful types have been dealt with.

The writer has found the subject of automatic weapons highly fascinating though at times troublesome. Perhaps the reader may share this interest.

Whether or not any truly satisfactory solution to the problem of inventing a semi-automatic rifle, capable of satisfying the requirements indicated, shall be soon forthcoming, is a question which the reader must answer for himself. It is hoped, at least, that this discussion will aid in the further education of the line officer.

RESERVE MATTERS

(*Continued from page* 30)

Aviation Cadet Richard E. Figley, 342 18th St., Canton, Ohio. Rank from 18 August, 1937, No. 2.

Aviation Cadet Dale J. Graham, Cameron, Missouri. Rank from 18 August, 1937, No. 3.

Aviation Cadet George F. Mackey, 123 N. Myrtle St., Hanford, Calif. Rank from 18 August, 1937, No. 4.

Aviation Cadet Harlan Rogers, Marathon, Iowa. Rank from 18 August, 1937, No. 5.

Aviation Cadet Malcolm J. Williamson, 306 6th St., Hudson, Disc. Rank from 18 August, 1937, No. 6.

The following promotion was made in the Marine Corps Reserve:

Captain Avery B. Kier, PMCR. Rank from 1 July, 1937, No. 6.

The following separations have occurred from the Marine Corps Reserve:

DISCHARGED—

Captain Charles S. Brooks, VMCR., effective 20 August, 1937.

First Lieutenant Francis H. Bradbury, VMCR., effective 20 August, 1937.

JAPANESE ACTIVITIES IN NORTH CHINA*

Condensed from Canadian Defense Quarterly

COLONEL A. M. NIKOLAIEFF

What seemed to be a decision of momentous importance, involving a change of her policy toward China, was taken by Japan in the early part of this year, when the new Premier of Japan (Mr. Hayashi) stated in the budget committee that he would make efforts to establish better cultural and economic relations between China and Japan and that his policy would seek harmonization of the two peoples. Shortly after, Mr. Sato, the Foreign Minister, declared before the House of Peers that China's demand to be treated on an equal footing should be respected and that he intended to re-examine the North China question with a view to compromise. Finally, a council of some of Japan's foremost leaders, called by the Tokyo Chamber of Commerce, arrived at the conclusion that Chino-Japanese cooperation was impossible without the solution of political difficulties among which Japan's North China policy was the "principal stumbling block for Japan's success."

Momentous as these declarations appear to be, their real significance may not be fully evaluated unless the activities of the Japanese both in North China and Inner Mongolia are carefully examined and their motives as far as possible are disclosed.

Throughout the recent years, these activities were nothing else than a continuation and development of Japanese strategic activities in Manchukua, as, having begun immediately after the seizure of Jehol, they resulted in the extension of Japan's control over Chahar, the easternmost province of Inner Mongolia, and over Hopei, the northernmost province of intramural China, both provinces bordering on Manchukuo.

The establishment of Japanese control over Chahar began by the invasion in the spring of 1933, of Dolon Nor, a district of the province of Jehol. The importance of the district, extending about 112 miles north and south by 50 miles east and west, lay in that it commanded the routes from Jehol into Inner Mongolia and was only about 100 miles away from the Kalgan-Urga caravan route, main artery of communication between Peiping and Eastern Siberia (the Trans-Baikalia region). From the time of its invasion, Dolon Nor has been considered by the Japanese as a "special" district. In it, the police, currency, telegraph, and postal service were in the hands of the Manchukuo government.

In the latter part of 1935, a further extension of Japanese control over Chahar was achieved. Li Shou-hsin, a Mongol general of Dolon Nor, launched a campaign at the head of an army of Jehol Mongols which resulted in the occupation of all Chahar territory north of the Great Wall and in the setting up at Changpeh (30 miles north of Kalgan) of a military government headed by Mongols and advised by Japanese. By this coup Li Shou-hsin not only had enlarged the Chahar area under a "special" regime, but also had "thrown a pro-Manchukuo barrier" across the province, separating eastern Inner Mongolia from China proper.

Simultaneously with imposing their control on Northern Chahar, the Japanese did the same with regard to Eastern Hopei, a portion of Hopei province of paramount strategic importance, projecting southward and forming a wedge between Peiping and Tientsin. Soon afterward the city of Tungchow, twelve miles east of Peiping, was occupied by Japanese troops, and a week later, Tangku, the sea port of Tientsin, was occupied by what was called the "forces of the recently proclaimed autonomous state of Eastern Hopei." Thereupon, the Japanese army authorities at Tientsin announced that Tangku was now a port of Yin-Ju-keng's independent zone.

The strategic advantage, gained by the Japanese by separating Eastern Hopei from China was obvious. Control of that region meant the possibility of using, in case of need, not only the ports of Tangku, Tientsin and Chinwangtao, but also the railway to Peiping.

The establishment of an independent regime in the eastern part of Hopei was followed by a change of the political status of the whole province, as well as that of the province of Chahar, and by the setting up in the two provinces of a regime which was semi-autonomous in name and pro-Japanese in fact. On 18th December (1935), there took place the inauguration of that new status under the name of Hopei-Chahar Political Council, a governing body, composed of North China leaders, with no appointees of Nanking.

What were the motives of Japan in forcing a semi-autonomous regime on the two provinces of North China and in setting up an "independent" region in each of them?

To answer this question it seems best to turn, first, to the statements made at the time by Japanese army representatives, then on official duty in China. Of these statements two, because of their remarkable frankness, were of special interest. One was made at Peiping by General Doihara, whose name is inseparably linked with Japanese political activities in China and Manchuria during the recent years. He said, there would be a gradual widening circle of autonomy from Hopei and Chahar to the neighboring provinces, Shansi, Suiyuan and Shantung, and advocated joint action by Japan, China and Manchukuo to protect Mongolia's integrity against incursions of Communists. The other statement was by General Tada, then commander of the Japanese garrison in North China, with headquarters in Tientsin, who went even farther than his colleague. He ventured a prediction that a second Russo-Japanese war would begin with a Russian offensive at the completion of the second Soviet five-year plan (which began on January 1, 1933), and characterized Japan's role as that of a "watch dog against Red influence" which China was "obstructing and hindering."

What Japan's strategic advantage would be, should she

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succeed in achieving such an aim, it is easy to see. With the creation of an "independent" Mongolia, Japan's new boundary, or her "first line of defense" as she prefers to call it, would be fronting on Siberia as far west as the Altai Mountains (opposite the region of Semipalatinsk) and all communications between China and Russia, with the exception of Chinese Turkestan, would be cut. Even now, with Hopei and Charhar under her control, Japan, in addition to cutting all communication between China and Russia via Kalgan-Urga has pushed forward and widened her strategic base on the mainland.

During the last year (1936), it looked for a time as if the Japanese would succeed in penetrating farther into Inner Mongolia and add Suiyuan, its province adjacent to Chahar on the west, to the vast area already under their control in China. This penetration was to be achieved by a Mongol-Manchukuoan invasion of Suiyuan, backed by the Japanese, and by establishing an "independent" Mongol regime, composed of Suiyuan and Northern Chahar. The Suiyuan campaign deserves special attention, in as much as its failure has served as the turning point in Japan's course of policy toward China, officially announced four months after the venture had started.

Preparations for the invasion of Suiyuan were being made on a large scale throughout the first ten months of the last year. They consisted in sending military equipment and supplies to the army of General Li Shou-hsin, Japan's ally, in installing wireless stations and building landing fields at strategic points in Chahar and Northern Suiyuan, and in connecting Dolon Nor, the gateway between Chahar and Jehol, with a highway by which troops and munitions from Jehol might be dispatched as far as the Outer Mongolian frontier.

At the same time, the Japanese spared no effort to cultivate the friendship and win the support of the Mongol princes in the buffer area between Chahar and Outer Mongolia, of whom the most important was Prince Teh (or Teh Wang), head of the Silingol league. Prince Teh had succeeded in building an army, estimated at 10,000 in early Fall of last year, which was drilled and equipped much better than the fighting forces of his neighbor princes.

With a view to training Mongol troops in Inner Mongolia, the Japanese has established a large military school in Northern Chahar, in which reserve officers of the Japanese army served as instructors and which was under Japanese supervision. While they were training Mongol troops, they were also supplying the Mongols with airplanes, tanks, and armored cars.

Prolonged negotiations were carried on with Prince Teh for the purpose of inducing him to break away from China and start an invasion of Suiyuan which resulted in obtaining his consent to the Japanese installing their officials in his capital and in reinforcing its garrison by Mongol-Manchukuan troops. Meanwhile, General Li Shou-hsin moved his forces to the Chahar-Suiyuan border, in the Shangtu area, opposite Hingho. Thus Suiyuan was threatened by invasion on two sides.

In anticipation of an attack on his province, Governor FU Tso-yi, together with Mongol leaders loyal to Nanking, decided to oppose the threatening invasion by force of arms. The troops of the province were reinforced by intensive recruiting and the defenses both on the eastern border and in the north were strengthened. His activities were not only meeting with the approval of Nanking, but the authorities there were prepared fully to support the Governor with the divisions stationed in the adjacent provinces.

The importance of Suiyuan, called the gateway to China's vast northwest, lay in that its loss would expose the province of Shansi and other northwestern provinces, as far as Sinkiang, to easy conquest.

The beginning of the invasion took place on 11th November. On that date the Mongol-Manchukuan forces, estimated at 30,000, attacked the Suiyuan defense lines at several points.

The possibility of Suiyuan going the way of Manchuria, Jehol and Northern Chahar aroused the Chinese to a degree of patriotic emotion and activity that had not been displayed by them since the fighting at Shanghai in 1932, with the exception, however, that this time the highest Chinese officials were at one with the people and the press. In Nanking, it was officially stated that Suiyuan "must be held at all costs" and that reinforcements had been pouring into the province for many days. The nation, as represented by labor unions, students, guilds and banks, gave evidence of its patriotic reaction to the danger by sending donations for the Suiyuan defense fund, which was coming from "all parts of the country." In Shanghai, there even started a movement for donation of gold wedding rings.

It would be impossible, on the ground of the press despatches, contradictory as usual when reporting clashes and engagements in China, to give an accurate description of the military operations that had taken place in Suiyuan. However, a general outline of the Mongol-Manchukuan offensive and the Chinese counterstroke, which seems to be approximately correct, may be traced.

The advance of the invaders into Suiyuan was undertaken on three main routes. Two columns moved from the east, General Li Shou-hsin on Hingho, and General Wang Yin on Taolin. The third column advanced from the north, aiming at the capital (Kweisui) which is situated on the Suiyuan railway.

At first, attacks, preceded by bombing from the air and supported by artillery, were made on Suiyuan's eastern defenses, during which heavy damage by bombs was done to Hingho and Taolin. As far as the conflicting news about the fighting permits, one may conclude that the Mongol-Manchukuans at first succeeded in breaking the defense lines, but later (on or about 19th November), the defenders, probably having been reinforced by the Nanking Government's divisions, launched a counter-attack in the area and defeated the invaders. On November 26th news was reported from Peiping, Nanking, Shanghai, and Kweisui which came as a complete surprise. It showed definitely that the situation, heretofore not very promising for the defenders, had changed radically in their favor, in fact, that the Mongol-Manchukuans had suffered a decisive defeat and the tide of the invasion had been stopped.

What step after the Mongol-Manchukuan failure in Suiyuan was contemplated by the Japanese is, of course, a matter of speculation, although press despatches, report-

ing movements of new reinforcements from Jehol and their concentration at Shangtu seemed to indicate that the invasion might be resumed. But on 12th December, that is, at the time when these preparations were taking place, there occurred an event which, no doubt, produced a great effect on the course of the Japanese policy toward China in general and toward Mongolia in particular. This event was the seizure by mutinous troops at Sianfu and the detention in captivity for two weeks of Generalissimo Chiang Kai-shek, with a view of forcing the Nanking Government to declare war on Japan and pledge itself to recover the lost territory, including Manchuria.

From this event and from the attitude displayed by the Chinese people while their popular leader was in captivity, especially from the rapprochement between Nanking and he Communists, it must have become obvious to the Japanese that they had carried their policy too far and that the continuation of such a "positive" course might not only force the Nanking Government to put an end to its non-resistance policy, but also have as a result the conclusion by China of an alliance with Russia. At any rate, the subsequent developments made it clear that there had occurred, at least for the time being, a definite change in Japan's aim of adding Suiyuan to the territory under her control in China.

However, it should be noted that, although Japan had abandoned the drive into Inner Mongolia, she has not relaxed her grip on Northern Chahar. To the contrary, according to travelers who visited the province in April last, a new Mongolian government was being organized under Japanese direction in North Chahar and, although Prince Teh, now considered loyal to Nanking, was chairman of the new regime, it was General Li Shou-hsin, who was the most powerful figure there.

In addition to the display of Chinese patriotism and their apparent tendency to oppose a united front to Japanese aggression, there are other factors which might have served to induce Japan to an alteration of the course of her policy toward China and Mongolia.

Of these factors, the building up, during the last five years, by the Soviet Union of a strong army in the Far East, should be placed before any other. Next, there should be pointed out the development of close relations between the Soviet Union and her de-facto protectorate, Outer Mongolia, which in November, 1934, took the form of an alliance, concluded for mutual assistance in case of an attack by a "third country." This became known only in April, 1936. From that time on, it has been clear that Russia stood ready to defend Outer Mongolia by force of arms, her motive being that Japan's seizure of Outer Mongolia would constitute a threat to Trans-Baikalia and to the whole of Eastern Siberia. Finally, the economic ailments, which have affected Japan's life during the recent years, may not be left out of consideration.

But, though a change was announced and even a step in the new direction was taken, there seems to be little hope to justify the belief that Japan's new policy signifies an abandonment; merely a postponement, of the aims which she has been vigorously pursuing since 1931.

The important question is how long the Japanese "let-up-on-China" policy may last. The answer that suggests itself is that the duration of the Japanese friendship will probably depend on the extent to which China is prepared to "sincerely cooperate," that is, yield to Japan's demands. And the degree of China's readiness to submit to Japanese dictates, in its turn, obviously will be the smaller the more she is prepared to offer resistance by opposing to Japan a united front.

BOOK REVIEW

LT-COL. C. H. METCALF, U.S.M.C.

The Marine's Handbook. By Captain L. A. Brown, U.S.M.C. (Annapolis, Md.: U. S. Naval Institute, 1937. Pp. xi, 178. $.75, less 10% for 50 to 100 copies, less 20% for 100 or over, all prices postpaid.)

The Marine's Handbook, which has already proved its worth as the most valuable single volume covering the training prescribed by Marine Corps Order No. 113 for all marines who were seeking a thorough knowledge of their military duties, has been republished, this time in regular book form, by the U. S. Naval Institute of Annapolis, Md. The little work is well known in its previous form to many marines as it has already gone through four editions with total sales of approximately ten thousand copies. The previous editions have, however, either been mimeographed or multigraphed. The current edition is printed on high grade paper, and is profoundly illustrated by diagrams and cuts. The scope and purpose of the book is well stated in the author's introduction:

> Scope. *The Marine's Handbook* comprises a complete set of questions and answers on all subjects of training for Marine Corps enlisted personnel, as enumerated under Marine Corps Order Number 113, with the exception of "Combat principles, the rifle platoon" and "Combat principles, the rifle company." In compliance with numerous requests and recommendations by both commissioned and enlisted personnel, the following subjects not included in Marine Corps Order 113, have been added:
>
> Individual instruction without arms.
> Rifle marksmanship.
> Pistol marksmanship.
> Display of equipment and clothing.
>
> Purpose. This book, in its direct and simple form, may be used advantageously by all grades of enlisted personnel in preparation for examinations to higher rank and as a text book in post schools. The questions and answers, by their form and construction, accomplish three desirable effects, namely: (1) Cause the subject matter to stand clearer in the reader's mind than ordinary manuscript. (2) Enable an instructor to conduct a written examination for any number of men in a short period of time due to the fact that the majority of the questions are answered in but a few

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words. (3) Eliminate all guess-work in that "yes or no" answers are avoided.

The book is arranged in a progressive course of study beginning with the instruction of the individual without arms and proceeding through the prescribed training with the several infantry weapons which the Marine Corps uses and on through the different close order to extended order movements of the rifle company and its subdivisions. The essential principles of infantry combat of the squad and section are covered in two chapters. Special chapters devoted to the description, mechanics and care of the rifle, automatic rifle, automatic pistol, the Thompson submachine gun, the V.B. rifle grenade and to hand grenades supply the essential knowledge on the basic weapons of the Marine Corps. A new chapter has been added on rifle marksmanship which is especially valuable since Colonel Harllee's scorebook which has for so many years supplied the basic data for rifle shooting is no longer available. The essentials of pistol shooting are likewise covered in a brief chapter. The chapter on the pack and display of clothing is particularly well illustrated with drawings and cuts and no marine who possesses this manual could ever go wrong in his inspection layout. Short chapters containing the basic principles of tent pitching, first aid and personal hygiene present the essential knowledge which should be known by every well trained marine about those subjects. The necessary knowledge which every well-instructed marine should know about guard duty is contained in two brief chapters. The closing chapters are devoted to scouting and patrolling and to musketry.

The text of the book obviously covers very completely the whole field of military training of a marine in all except the higher non-commissioned grades. It is especially valuable for men preparing for examination for promotion. Colonel W. P. Upshur, U.S.M.C., comments very appropriately on the book as follows: "It is not only useful for instruction during school periods, but permits anyone, by individual study, to gain first hand knowledge of basic principles that enlisted men should know." He also recommended it for use of marine reservists in the following statement: "*The Marine's Handbook* should be of particular value to officers and men of the Marine Corps Reserve, whose time for drill and instruction is limited. By practical drill and instruction, coupled with conscientious study, all concerned can meet a high standard of knowledge and efficiency in the subjects herein treated." Its usefulness to the Marine Corps Reserve is further evidenced by the fact that during the last eighteen months marine reservists have purchased upward to one thousand copies of the *Handbook*.

Perhaps the strongest endorsement at this time available for a handbook written for the rank and file of the American service is contained in a recent book entitled WE CAN DEFEND AMERICA! by Major General Johnson Hagood, U. S. Army (ret.). In commenting on a very similar handbook of which some twenty-eight thousand copies had been distributed in the Army, General Hagood in his characteristic forceful style stated: "The purpose of this little handbook is to take advantage of the obvious fact that soldiers can read, and to place in the possession of every individual soldier in peace and war a simple textbook from which he himself can learn his essential duties. He can learn about 90 per cent of the technique—nobody could give him experience—and the balance of it could be explained to him in a relatively short time by instructors. The old method of training was a matter of tradition and folklore. It was handed down from father to son throughout the centuries. And there never has been in the American Army a textbook of any kind from which a private soldier could get any idea of what he is expected to do in time of war. When every recruit has a handbook in his pocket which he can read during the rest periods, at meals and in his tent before going to bed, the training is accelerated to an astounding degree."

The Marine's Handbook should be similarly valuable to Marine Corps recruits whose training could be greatly facilitated by individual reading and study either during or outside of their regular instruction hours.

Since the Naval Institute has taken over the publication and sale of Captain Brown's basic book of instruction for marines it has become a regular and it is hoped "permanent" part of military literature and readily available to all persons in need of such information. All sales hereafter will be handled by the publisher. The distribution of the book may be carried on by all post exchanges not located in a navy yard or station. At other posts it will be necessary for the distribution of the book to be made by some other agency or person in order to comply with existing restrictions imposed on the sales of works written by persons in the regular naval service.

To clarify story carried on page 34 of February, 1937, issue.

AFTER THIRTY-SEVEN YEARS

(*Continued from page 20*)

the year 1900. General Waller proposed that we should endeavor to mark the site of that redoubt at Yorktown, known as the Fusilier's Redoubt, by a suitable memorial testifying particularly to the Marine Corps' association with the Royal Welch Fusiliers in 1900 and incidentally commemorating their "uncommon gallantry" on that historic ground during our War of the Revolution. General Waller's proposal represents an opportunity to accomplish something useful and in an altogether novel way, to place before the American public a testimonial to a British Regiment expressive of the sentiments of the United States Marine Corps. The authorities of the Marine Corps at Washington gave it their approval at the time—expressing the hope that it might be found possible for something to be done to bring about the desired result. It is not enough to be content with the cloudy abstract idea; such sympathetic friendship and understanding should be exemplified by a beautiful symbol, unfolding to the American public what we cherish and why it is so cherished. General Waller felt that such a memorial, if erected, would perhaps further a better understanding of the mutual interests of the English speaking peoples of today. He ventured to say that American public opinion would approve of his proposal."

That happy association with the Royal Welch Fusiliers in the glorious moments of arduous service on China's field of honor, did in truth establish a British-American friendship, universal in its dimensions. The generosity of the liberal mind cannot be circumscribed either by the bounds of the greatest nation or the limits of the most extensive empire. Men of one race, men of a common ancestry, are alike inspired by identical motives. Both love liberty. And the love of country is inherent to each. That ardent sentiment stands above all others in our manifold affections.

In these days of doubts and perplexities, a sympathetic understanding among all men of the English-speaking race is full of promise for civilization. It represents a bond between nations stronger than any treaty can create. The banners of Old England and those of the United States, despite recent preductions to the contrary, will only meet on a battlefield, when entwined as in North China, in common defense of a cause of holy justice, to succor the oppressed, to enfranchise the downtrodden, to advance liberty, progress and civilization. In that relation, this memorial to the erection of which the American Marine is being persuaded to turn his hands—would raise a symbol on American shores which would lead the minds and hearts of all to a path of genuine peace contributing not only to the security of each nation but to the orderly progress and enlightenment of all the peoples of the world.

Fortunately the character of the duty performed by these two organizations has created opportunity for occasional reunions and continuation of the long and close friendship.—ED.

THE NAVAL ATTACK ON THE DARDANELLES

(*Continued from page 47*)

have done through the centuries, but even such gallantry was not sufficient to "blunder through" in this campaign. The fleet's bombardment was little less than an elaborate announcement that an attack was to come. Such procedure is no doubt very sporting and fine cricket, but extremely bad war.

Finally, let us look at the words of two distinguished admirals who lived nearly a century apart. First, Mahan: "The proper place for a naval force is on the high seas seeking engagement with other naval forces, unless there is present with the fleet an adequate landing force." For our second thought along similar lines, let us turn back the pages of history to the year 1807, March. A British squadron of frigates is anchored at the Dardanelles. Russia and England are at war against Turkey. Admiral Sir John Duckworth, commanding England's Mediterranean Fleet, is seated in his cabin making a report to the Admiralty in London. He writes: "I must as an officer declare it to be my decided opinion that without the co-operation of a body of land forces it would be a wanton sacrifice of our squadrons to attempt to force a passage."

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